FINAL PERMIT

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY HAZARDOUS WASTE POST-CLOSURE PERMIT

PERMITTEE:

INTERNATIONAL PAPER

PERMIT NUMBER:

LAD 008 077 315- PC-RN-1

Agency Interest# 1249 / Activity# PER2001001

FACILITY LOCATION:

235 POST PLANT ROAD BEAUREGARD PARISH

DERIDDER, LOUISIANA 70634

This permit is issued by the Louisiana Department of Environmental Quality (LDEQ) under the authority of the Louisiana Hazardous Waste Control Law R.S. 20:2171 et seq., and the regulations adopted thereunder and under the authority of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) to International Paper, (hereafter referred to as the "permittee"), for the facility located at Deridder, Beauregard Parish, Louisiana, latitude 30°50'15"N and longitude 93°17'00"W.

For the purposes of this permit, the "Administrative Authority" shall be the Secretary of the LDEQ, or his/her designee.

The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein, and the applicable regulations contained in the Louisiana Administrative Code, Title 33, Part V, Subpart 1, (LAC 33:V.Subpart 1). Applicable regulations are those that are in effect on the date of issuance of this permit.

This permit is based on the assumption that the information provided to LDEQ by the permittee is accurate. Further, this permit is based in part on the provisions of Sections 206, 212, and 224 of the HSWA of 1984, which modify Section 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit.

Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification, revocation, and reissuance of this permit (see LAC 33:V.323) and potential enforcement action. The permittee must inform the LDEQ of any deviation from or changes in the information in the application that would affect the permittee's ability to comply with the applicable regulations or permit conditions.

This permit shall be effective as of April 23, 2007, and shall remain in effect until April 23, 2017, unless revoked, reissued, modified or terminated in accordance with LAC 33:V.323 and 705 of the Louisiana Hazardous Waste Regulations. The Administrative Authority may issue any permit for a duration that is less than the maximum term of ten (10) years and the term shall not be extended beyond the maximum duration by modification in accordance with LAC 33:V.315.

Post-closure requirements of LAC 33:V. Subchapter B must continue for at least thirty (30) years after the date of closure for those units listed in Section IV. of this permit. Expiration of this permit does not relieve the permittee of the responsibility to reapply for a permit for the remainder of the thirty (30) year post-closure care period.

Provisions of this permit may be appealed in writing pursuant to LA. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the Secretary elects to suspend other provisions as well. A request for hearing must be sent to the following:

Louisiana Department of Environmental Quality
Office of the Secretary
Attention: Hearings Clerk, Legal Services Division
Post Office Box 4302
Baton Rouge, LA 70821-4302

Chuck Carr Brown Ph.D., Assistant Secretary Louisiana Department of Environmental Quality Date

PUBLIC PARTICIPATION

PUBLIC NOTICE LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ) INTERNATIONAL PAPER / DERIDDER PLANT FINAL HAZARDOUS WASTE POST-CLOSURE PERMIT RENEWAL

he LDEQ, Office of Environmental Services, has made the decision to issue the Final Hazardous Waste Post-Closure Permit Renewal for International Paper, 235 Post Plant Road, DeRidder, LA 70634, for the DeRidder Plant. The facility is located at 235 Post Plant Road in DeRidder, Beauregard Parish.

Under this Final Hazardous Waste Post-Closure permit renewal, International Paper will manage and oversee the post-closure care of Waste Management Areas A, B, C, and the Drip Pad at the former treated woods product facility. The wood preserving plant produced utility poles and pilings using a pressure treatment process in conformance with the American Wood Preservers Association. The facility is now closed.

The final permitting action and related documents are available for review and copying (all documents copied will be subject to a \$0.25 charge per copied page) at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.

An additional copy of this action may be reviewed at the Beauregard Parish Library, 205 South Washington Street, Deridder, LA.

In accordance with Louisiana Revised Statutes (La R.S.) 30:2024, the Permittee may file with the secretary a request for a hearing no later than thirty (30) days after the notice of the action is served. Under La. R.S. 30:2050.21, any person aggrieved by a final permit action may appeal to the Nineteenth Judicial District Court within 30 days after the notice of the action has been given.

Previous notices have been published in the Beauregard Daily News and The Advocate on December 19, 2006.

Inquiries or requests for additional information regarding this permit action, should be directed to Toni Metoyer Booker, LDEQ, Water & Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-0956.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation -related-questions-should-contact-the-Public-Participation-Group-in-writing-at-LDEQ,-P.O.-Box-4313,-Baton-Rouge, LA 70821-4313, by email at maillistrequest@ldeq.org or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the issued permit and associated information can be viewed at the LDEQ permits public notice webpage at www.deq.state.la.us/news/PubNotice/ and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq pn listserv.htm.

All correspondence should specify AI Number 1249, Permit Number LAD 008 077 315 PC RN-1, and ctivity Number PER20010001.

Publication date: March 22, 2007

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KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D. SECRETARY

March 16, 2007

Via Fax: (225) 388-0164

Ms. Susan Bush Legal Advertising The Advocate P.O. Box 588 Baton Rouge, LA 70821-0588

Re: Request for Public Comment

International Paper - DeRidder Plant

Beauregard Parish, Louisiana

AI No. 1249, LAD 008 077 315 PC RN-1, PER20010001

Dear Ms. Bush:

Please publish the attached legal notice regarding the above referenced facility as a legal ad in <u>The Advocate</u> once only on March 22, 2007.

State regulations require that we provide notification to the public and allow sufficient time for public comments. For this department to be assured that adequate notification is provided, we are requesting that you sign and date the enclosed 'Verification by Newspaper', and fax it to my attention (225) 219-3309 immediately upon publication. If the notice cannot be published in the format requested, or on the date requested, please contact me immediately at (225) 219-3280 or email barbara.mason@la.gov.

Please forward invoice to Mr. Tom Richardson, International Paper, DeRidder Plant, 6400 Poplar Avenue, Memphis, TN 38197, telephone (901) 419-3878, and send the <u>tear sheet</u> stating the notice was published as requested to my attention, Office of Environmental Services/Environmental Assistance Division, Post Office Box 4313, Baton Rouge, LA 70821-4313.

Thank you for assisting in our effort to serve the public.

Sincerely,

Barbara Mason

Environmental Project Specialist Public Participation Group

/bm

Attachments/2



KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D. SECRETARY

March 16, 2007

Phone: (337) 462-0616 Via Fax: (337) 463-5347 bdnclassified@yahoo.com

Ms. Tammy Isbell Legal Advertising Beauregard Daily News P.O. Box 698 DeRidder, LA 70634

Re: Request for Public Comment

International Paper - DeRidder Plant

Beauregard Parish, Louisiana

AI No. 1249, LAD 008 077 315 PC RN-1, PER20010001

Dear Ms. Isbell:

Please publish the attached legal notice regarding the above referenced facility as a legal ad in the **Buearegard** Daily News once only on March 22, 2007.

State regulations require that we provide notification to the public and allow sufficient time for public comments. For this department to be assured that adequate notification is provided, we are requesting that you sign and date the enclosed 'Verification by Newspaper', and fax it to my attention (225) 219-3309 immediately upon publication. If the notice cannot be published in the format requested, or on the date requested, please contact me immediately at (225) 219-3280 or email barbara.mason@la.gov.

Please forward invoice to Mr. Tom Richardson, International Paper, DeRidder Plant, 6400 Poplar Avenue, Memphis, TN 38197, telephone (901) 419-3878, and send the <u>tear sheet</u> stating the notice was published as requested to my attention, Office of Environmental Services/Environmental Assistance Division, Post Office Box 4313, Baton Rouge, LA 70821-4313.

Thank you for assisting in our effort to serve the public.

Sincerely,

Barbara Mason

Environmental Project Specialist Public Participation Group

/bm

Attachments/2

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313 P:225-219-3181 F:225-219-3309 WWW.DEQ.LOUISIANA.GOV



KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D.

March 15, 2007

Telephone: (214) 665-6669

Mr. Kishor Fruitwala, Ph.D., P.E. U. S. EPA, Region VI Chief, RCRA Facility Assessment (6PD-A) 1445 Ross Avenue Dallas, Texas 75202

SECRETARY

Re: Request for Public Comment
International Paper – DeRidder Plant
Beauregard Parish, Louisiana
AI No. 1249, LAD 008 077 315 PC RN-1, PER20010001

Dear Mr. Fruitwala:

The Louisiana Department of Environmental Quality (LDEQ) is enclosing for your reference, a copy of the final hazardous waste post closure permit renewal and the legal notice, schedule to publish in the <u>Beauregard Daily News</u> and <u>The Advocate</u> on March 22, 2007.

Should you have any questions regarding the facility, additional permit information may be obtained from Ms. Toni Metoyer Booker, LDEQ, Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-0956.

Sincerely,

Barbara Mason

Environmental Project Specialist

Public Participation Group

/bm

Enclosures



KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D. SECRETARY

March 15, 2007

Telephone (337) 491-2667

Mr. Billy Eakins, Regional Manager Southwest Regional Office 1301 Gadwall Street Lake Charles, LA 70615

Re:

Request for Public Comment

International Paper - DeRidder Plant

Beauregard Parish, Louisiana

AI No. 1249, LAD 008 077 315 PC RN-1, PER20010001

Dear Mr. Eakins:

We request that the enclosed copy of the final hazardous waste post closure permit renewal and a copy of the request for public notice for the referenced facility be made available for public review upon receipt. It is imperative that these documents are available for review at all times; therefore, it cannot be checked out at any time by anyone.

The Louisiana Department of Environmental Quality, Office of Environmental Services, Permits Division, will provide written notice to you requesting that the information be removed.

We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

Barbara Mason

Environmental Project Specialist

Public Participation Group

/bm

Enclosure



KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D. SECRETARY

March 15, 2007

Telephone (337) 463-7019

Mr. Jerry M. Kern, President Beauregard Parish Police Jury 214 West 2nd Street DeRidder, LA 70634

Re: Request for Public Comment

International Paper - DeRidder Plant

Beauregard Parish, Louisiana

AI No. 1249, LAD 008 077 315 PC RN-1, PER20010001

Dear Mr. Kern:

Enclosed is a copy of the final hazardous waste post closure permit renewal and request for public notice for the referenced facility. This information should be made available for public review upon receipt. It is imperative that these documents are available for review at all times; therefore, it cannot be checked out at any time by anyone.

The Louisiana Department of Environmental Quality, Office of Environmental Services, (LDEQ-OES) Permits Division, will provide written notice to you requesting that the information be removed.

Please complete the attached verification form and mail to me, LDEQ-OES, Environmental Assistance Division, Post Office Box 4313, Baton Rouge, Louisiana 70821-4313, or fax it to (225) 219-3309.

We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

Barbara Mason

Environmental Project Specialist

Public Participation Group

/bm

Enclosure



KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D.

MIKE D. McDANIEL, Ph.D. SECRETARY

March 15, 2007

Telephone: (337) 463-6217

Ms. Lilly Smith, Director Beauregard Parish Library-Headquarters 205 South Washington Avenue DeRidder, LA 70734

Re: Request for Public Comment

International Paper - DeRidder Plant

Beauregard Parish, Louisiana

AI No. 1249, LAD 008 077 315 PC RN-1, PER20010001

Dear Ms. Edwards:

We request that the enclosed copy of the final hazardous waste post closure permit renewal and the public notice for the referenced facility be made available for public review upon receipt. It is imperative that these documents are available for review at all times; therefore, it cannot be checked out at any time by anyone.

The Louisiana Department of Environmental Quality, Office of Environmental Services, (LDEQ-OES) Permits Division, will provide written notice to you requesting that the information be removed.

Please complete the attached verification by library form and mail to me at LDEQ-OES, Environmental-Assistance-Division, Post-Office Box-4313, Baton-Rouge, Louisiana 70821-4313, or fax it to (225) 219-3309.

We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

Barbara Mason

Environmental Project Specialist

Public Participation Group

/bm Enclosure

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313 P:225-219-3181 F:225-219-3309 WWW.DEQ.LOUISIANA.GOV



PUBLIC NOTICE LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ) INTERNATIONAL PAPER / DERIDDER FACILITY DRAFT HAZARDOUS WASTE POST-CLOSURE PERMIT

The LDEQ, Office of Environmental Services, is accepting written comments on a draft Hazardous Waste Post-Closure Permit for International Paper, 235 Post Plant Road, Deridder, Louisiana 70634 for the Deridder facility. The facility is located at 235 Post Plant Road, Deridder, Beauregard Parish.

International Paper proposes to obtain a hazardous waste post-closure permit for the management, and post-closure care of Waste Management Areas A, B, C, and the Drip Pad at the former treated wood product facility. The wood preserving plant produced utility poles and pilings using a pressure treatment process in conformance with the American Wood Preservers Association. The facility is now closed.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. Written comments and/or written requests must be received by 12:30 p.m., Monday, February 5, 2007. Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The application, draft hazardous waste post-closure permit and fact sheet are available for review at the LDEQ, Public ds Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., ay through Friday (except holidays). The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.

Additional copies may be reviewed at the Beauregard Parish Library, 205 South Washington Street, DeRidder, LA.

Inquiries or requests for additional information regarding this permit action should be directed to Ms. Toni Metoyer Booker, LDEQ, Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-0956.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at <a href="mailto:ma

Permit public notices including electronic access to the draft permit and associated information can be viewed on the LDEQ permits public webpage at www.deq.state.la.us/news/PubNotice/ and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number 1249, Permit Number LAD 008 077 315, and Activity Number PER20010001..

tion date: December 19, 2006.



KATHLEEN BABINEAUX BLANCO GOVERNOR

MIKE D. McDANIEL, Ph.D. SECRETARY

December 13, 2006

Telephone (337) 463-6217

Mrs. Lilly Smith, Director Beauregard Parish Library Headquarters 205 South Washington Avenue DeRidder, Louisiana 70634

Re: Request for Public Comment on a Draft Hazardous Waste Post-Closure

Permit

International Paper - Deridder Facility

DeRidder, Beauregard Parish

AI 1249, Permit No. LAD 008 077 315-PC-RN-1, Activity No. PER20010001

Dear Mrs. Smith,

We request that the enclosed permit application, Draft Hazardous Waste Post-Closure Permit, fact sheet and public notice for the referenced facility be made available for public review upon receipt. It is imperative that these documents are available for review at all times; therefore, they cannot be checked out by anyone at any time.

The documents should be retained during the permitting process. At the close of the permitting period, the Louisiana Department of Environmental Quality, Office of Environmental Services (LDEQ-OES), Permits Division, will provide written notice to you requesting that the information be removed.

Please complete the attached 'Verification by Library' and mail to Mr. Brian Smith, LDEQ-OES, Environmental Assistance Division, PO Box 4313, Baton Rouge, LA 70821-4313, or Fax (225) 219-3309.

We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3279.

Sincerely,

Environmental Project Specialist

BS

Attachments/2



KATHLEEN BABINEAUX BLANCO GOVERNOR

MIKE D. McDANIEL, Ph.D. SECRETARY

December 14, 2006

Phone (337) 463-7019

Mr. Jerry Kern, Parish President Beauregard Parish Police Jury 214 West 2nd Street DeRidder, Louisiana 70634

Re:

Request for Public Comment on a Draft Hazardous Waste Post-Closure Permit

International Paper - Deridder Facility

DeRidder, Beauregard Parish

Al 1249, Permit No. LAD 008 077 315-PC-RN-1, Activity No. PER20010001

Dear Mr. Kern:

The Louisiana Department of Environmental Quality (LDEQ) is enclosing for your reference, a copy of the proposed draft hazardous waste post-closure permit, application and the legal notice to be published in the Beauregard Daily News and The Advocate on Tuesday, December 19, 2006. This permitting action is scheduled to be announced on WJBO AM / on Tuesday, December 19, 2006.

Should you have any questions regarding the facility, additional permit information may be obtained from Ms. Toni Metoyer Booker, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-0956.

Sincerely,

Brian Smith

Environmental Project Specialist

BS

Enclosures/2



KATHLEEN BABINEAUX BLANCO GOVERNOR MIKE D. McDANIEL, Ph.D. SECRETARY

December 18, 2006

Kishor Fruitwala, Ph.D., P.E. U. S. EPA, Region VI 1445 Ross Avenue Dallas, Texas 75202-2733 Telephone: (214) 665-6750

Re: Request for Public Comment on a Draft Hazardous Waste Post-Closure Permit

International Paper - Deridder Facility

DeRidder, Beauregard Parish

AI 1249, Permit No. LAD 008 077 315-PC-RN-1, Activity No. PER20010001

Dear Dr. Fruitwala:

The Louisiana Department of Environmental Quality (LDEQ) is enclosing for your reference, a copy of the proposed draft hazardous waste post-closure permit, application and the legal notice to be published in the <u>Beauregard Daily News</u> and <u>The Advocate</u> on Tuesday, December 19, 2006. This permitting action is scheduled to be announced on WJBO AM / on Tuesday, December 19, 2006.

Should you have any questions regarding the facility, additional permit information may be obtained from Ms. Toni Metoyer Booker, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-0956.

Sincerely,

Brian C. Smith

Environmental Project Specialist

Public Participation Group

BS

Attachments/2

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ATTACHMENT 1	LIST OF FACILITY DOCUMENTS INCORPORATED IN THE PERMIT BY REFERENCE

PART A APPLICATION

SEND COMPLETED FORM TO:	United States Environmental Protein	ction Agency									
The Appropriate State or A Regional Office.	RCRA SUBTITLE C SITE IDENTIFIC	ATION FORM									
ason for	Reason for Submittal:										
Submittal (See instructions on page 14.)	☐ To provide Initial Notification of Regulated Waste Activit waste, universal waste, or used oil activities)	y (to obtain an EPA ID Number for hazardous									
MARK ALL BOX(ES)	☐ To provide Subsequent Notification of Regulated Waste	Activity (to update site identification information)									
THAT APPLY	☐ As a component of a First RCRA Hazardous Waste Part	A Permit Application									
	🛮 As a component of a Revised RCRA Hazardous Waste	Part A Permit Application (Amendment #)									
	☐ As a component of the Hazardous Waste Report										
2. Site EPA ID Number (page 15)	EPA ID Number L A D 0 8 0	1 7 1 7 1 1 3 1 1 1 5 1									
3. Site Name (page 15)	Name: International Paper	·									
4. Site Location	Street Address: 235 Post Plant Road	and the second									
Information (page 15)	City, Town, or Village: DeRidder	State: LA									
The same of the sa	County Name: Beauregard	Zip Code: 170634 Simulta status samula									
Site Land Type.	Site Land Type: 80 Private C County C District C Federal C Indian C Municipal C State D Other										
North American Industry Classification	A. 3 2 1 1 -1 4										
System (NAIGS) Code(s) for the Site (page 15)	D. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
. Site Mailing	Street or P. O. Box: Same										
Address (mm) (page 16)	City, Town, or Village:										
	State:										
	Country:	Zip Code:									
Site Contact Person	First Name: Tom MI: C.	Last Name: Richardson									
(page 16)	Phone Number: Extension: 901/419-3878	Email address: Tom.Richardson@ipaper.com									
Operator and Legal Owner	A. Name of Site's Operator: International Paper	Date Became Operator (mm/dd/yyyy): 1955									
of the Site (pages 16 and 17)	Operator Type: Private County District Feder	al 🗆 Indian 🔾 Municipal 🔾 State 🗆 Other									
	B. Name of Site's Legal Owner:	Date Became Owner (mm/dd/yyyy):									
· ·	International Paper Owner Type: ○ Private ○ County ○ District ○ Feder	1955 ral □ Indian □ Municipal □ State □ Other									
_	and the state of t	and a manufact of otole a one									

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BEST COPY OF THE NEXT ______ PAGES

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handled at you		m in the order they		list the waste codes of the Fegulations (e.g., D001, D000	
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. Comments (Se	e instructions	on page 22.)		•	
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intact (See	Tom	С.	Richardson
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(See Instructions	1937		
age 24)			
r Environmental Pe	mits (See instructions on page 24)		
Permit Type Enter code)	B. Permit Number		C. Description
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DeRidder Wood Preserving Plant produced utility poles and piling using a pressure treatment process in conformance he American Wood Preservers Association and customer specifications. The facility is now closed and entering e status. .

e of Business (Provide a brief description; see instructions on page 24)

A ID NO: | L | A | D | | 0 | 0 | 8 | | 0 | 7 | 7 | | 3 | 1 | 5 |

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ocess Codes and Design Capacities (See instructions on page 24) - Enter information in the Sections on Form Page 3.

CESS CODE - Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" process (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).

PROCESS DESIGN CAPACITY- For each code entered in Section A, enter the capacity of the process.

- 1. AMOUNT Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
- 2. UNIT OF MEASURE For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

PROCESS TOTAL NUMBER OF UNITS - Enter the total number of units for each corresponding process code.

: ESS :	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal: Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T31	Treatment (continued): Cement Kiln Lime Kiln	For T81-T93:
	Landfill	Acredees; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yords	T83	Aggregate Kiln Phosphate Kiln Coke Oven	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric
	Land Treatment	Acres or Hectares	T86	Blast Furnace	Tons Per Hour; Short Tons Per Day; Blu
	Ocean Disposal	Gallons Per Day or Liters Per Day .	T87	Smelting, Melting, or Refining	Per Hour; Liters Per Hour; Kilograms Per
	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	788	Furnace Titanium Dioxide Chloride Oxidation Reactor	Hour; ar Millian Bru Per Hour
	Other Disposal	Any Unit of Measure in Code Table Below	T89	Methane Reforming Furnace Pulping Liquor Recovery	
وو	Storage: Container	Gallons; Liters; Cubic Melers; de Cubic Yards	T90 T91	Furnace Combustion Device Used In at a	ing di kalangan di Kalanga Kalangan di Kalangan di Ka
,	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T92	The Recovery Of Sulfur Values From Spent Sulfurit Acid.	[17] A. Sangara, A. Sangara, P. Sangara, A. Sangara, A. Sangara, S. Sangara
	Waste Pile	Cubic-Yards or Cubic Meters. Gallons; Liters; Cubic Meters; or Cubic Yards		Halogen Acid Furnaces Other Industrial Furnaces Listed In 40 CFR §760.10	militari da ser esta esta esta esta esta esta esta esta
	Drip Pad	Gallons; Liters: Acres; Cubic Meters; Hectares; or Gobic Yards	T94	Containment Building -	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Biu Per Hour; Pounds Per Hour; Short Tons
	Containment Building Storage	Cubic Yards or Cubic Melers		1	Per Day; Kilograms Per Hour; Metric Tros Per Day; Gailons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Bru Per
·	Other Storage	Any Unit of Measure in Coile Table Below		hat Maria (Mr. h. a. Mr.	Hour
	Tresiment:	College Bar Barra Marie Bar Barra	10x	Miscellaneous (Subpart X): Open Burning/Open	Any Unit of Measure in Code Table Below
	Tank Treatment	Gallons Per Day; Liters Per Day	X02	Delonation Mechanical Processing	
	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day	^**	Miccusmes Frocesing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per
	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Lilers Per Hour; Biu Per Hour;		••	Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
		Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Blu Per Hour	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms
	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour;			Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Biu Per Hour; or Million Biu Per Hour
	•	Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour	X04 ,	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour	X99	Other Subpart X	Any Unit of Measure Listed Below

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UNIT OF	UNIT OF	
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Short Tons Per Day	N	
Metric Tons Per Day	\$	
Pounds Per Hour	J	
Kilograms Per Hour	R	
Million Blu Per Hour	X	
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UNIT OF .	UNIT OF
MEASURE	MEASURE CODE
Cubic Yards	Y
Cubic Meters	C
Acres	
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Hectare-meter	
Biu Per Hour	

ocess Codes and Design Capacities (Continued)

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EXAMPLE FOR COMPLETING Item 8 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

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you need to list more than 15 process codes, attach an additional sheet(s) with the information in the same format as above. Number sequentially, taking into account any lines that will be used for "other" processes (i.e., D99; S99; IQ4 and X99) in Item 9.

r-Processes (See instructions on page 25 and follow instructions from Item 8 for D99, S99, T04 and <u>X99 process codes)</u> ि C. ह - m- --B. PROCESS DESIGN CAPACITY - A. Process Total (2) Unit of ±Number₋of Measure Process Code Units (1) Amount (Specify) D. Description of Process (From list above) (Enter code) 1.0,0.00 U 0 0 1 In-situ Vitrification 3 Closed; No capacity. 0 0 3 Surface Impoundments Closed. 0 Closed; No capacity. 0 0 1 Drip Pad, Closed.

A ID NO: | L | A | D | | 0 | 0 | 8 | | 0 | 7 | 7 | | 1 | 3 | 1 | 1 | 5 |

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escription of Hazardous Wastes (See instructions on page 25) - Enter information in the Sections on Form Page 5,

EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle.

bezardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that is the characteristics and/or the toxic contaminants of those hazardous wastes.

ESTIMATED ANNUAL QUANTITY - For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

UNIT OF MEASURE - For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	· K
TONS	7	METRIC TONS	М

facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking account the appropriate density or specific gravity of the waste.

ROCESSES

. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in Section A; select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store; treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

2. Enter "000" in the extreme right box of Item 10.D(1).

J. Use additional sheet, enter-line number from previous sheet, and enter additional code(s) in Item 10 El 1997 (1997)

PROCESS-DESCRIPTION: All Evide Is not listed for a process that will be used, describe the process in item 10.0(2) or in (least 0.E(2):

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.

- 2. In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "included with above" and make no other entries on that line.
- 3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste,

PLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds ar of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes assets are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

	A. EPA Hazardous Waste No. (Enter code)		15	B. Estimated Annual	C. Unit of	D. PROCESSES											
			Quantity of Waste	Measure (Enter code)	•		(1) PR	OCESS	(2) PROCESS DESCRIPTION- (If a code is not entered in D(1))								
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7	Ċ	0	0	2	400	Р	T	0	3	D	8	0					
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	А, В.							D. PROCESSES																	
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show the outline of the facility, the location of each	lent map, of the area extending to at least one mile beyond property boundaries. The								
r bodies in this map area. See instructions for precise re	where it injects: fluids underground. Include all springs, rivers and other surface								
ility Drawing (See instructions on page 26)									
xisting facilities must include a scale drawing of the facili	ity (see instructions for more detail).								
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xisting facilities must include photographs (aerial or grou	und-level) that clearly delineate all existing structures; existing storage, treatment and								
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BODY OF PERMIT

FINAL HAZARDOUS WASTE POST-CLOSURE PERMIT

INTERNATIONAL PAPER
DERIDDER FACILITY
EPA ID# LAD 008 077 315
Deridder, Louisiana
Beauregard Parish

Agency Interest # 1249 PER2001001

PERMIT # LAD 008 077 315-PC-RN-1

I. PERMIT PREAMBLE

This permit is issued to International Paper, hereinafter referred to as the Permittee, by the Louisiana Department of Environmental Quality (LDEQ) under authority of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et seq., and the regulations adopted thereunder.

For the purposes of the permit, "Administrative Authority" shall mean the Secretary of the Department of Environmental Quality, or his/her designee.

This permit is based on information submitted in the permit application, and all subsequent amendments, and on the applicant's certification that such information is accurate and that all facilities were or will be maintained and operated as specified in the application.

This permit is conditioned upon full compliance with all applicable provisions of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et seq and the regulations adopted thereunder.

II. GENERAL PERMIT CONDITIONS

II.A. DURATION OF PERMIT

This permit is effective as of the date indicated on the accompanying signature page and shall remain in effect for a maximum period of ten (10) years from the effective date, unless suspended, modified, revoked and reissued or terminated for just cause.

II.B. EFFECT OF PERMIT

This permit authorizes the Permittee to conduct post-closure care activities associated with Waste Management Area A (WMA-A), Waste Management Area B (WMA-B), Waste Management Area C (WMA-C), and the Drip Pad. Corrective action activities for groundwater contamination will be conducted in accordance with the conditions of this permit. The Permittee is prohibited from any storage, treatment or disposal of hazardous waste not authorized by statute, regulation or this permit. Compliance with this permit, LAC 33:V. Subpart 1 and HSWA, constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA and Chapter 9 of the Louisiana Environmental Quality Act (Act). However, compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3013 or Section 7003 of RCRA, or under Section 106 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) {42 U.S.C. 9606 (a)}.

In accordance with LAC 33:V.307.G., issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations.

II.C. PERMIT ACTIONS

Any inaccuracies found in the permit application may be cause for revocation or modification of this permit. The Permittee must inform the Administrative Authority of any deviation from, changes or inaccuracies in the information in the permit application.

The Administrative Authority may also suspend, modify, revoke and reissue, or terminate for cause when necessary to be protective of human health or the environment as specified in 40 CFR 270.41, 270.42, 270.43 or LAC 33:V.309.F, 311.A or 323. The Administrative Authority may modify the permit when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulation, or by judicial decision after the permit was issued. The filing of a request for permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated

noncompliance on the part of Permittee does not stay the applicability or enforceability of any permit condition.

II.D. SEVERABILITY

The conditions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

II.E. DUTIES AND REQUIREMENTS

II.E.1. Duty to Comply

The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance may be authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit (LAC 33:V.701), constitutes a violation of the LAC 33:V.Subpart 1 and the Environmental Quality Act and is grounds for enforcement action which may include permit termination, permit revocation and reissuance, permit modification, or denial of permit renewal application.

II.E.2. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must reapply for the permit as required by the LAC 33:V.303.N and 309.B. Notification shall be at least 180 calendar days before the permit expires.

II.E.3. Permit Extension

This permit and all conditions herein will remain in effect beyond the permit's expiration date until the Administrative Authority issues a final decision on the re-application, provided the Permittee has submitted a timely, complete new permit application as provided in LAC 33:V.309.B and 315.A.

II.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

П.Е.5. Duty to Mitigate

The Permittee shall immediately take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit as required by LAC 33:V.309.D.

II.E.6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related ancillary equipment) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

II.E.7. Duty to Provide Information

The Permittee shall furnish to the Administrative Authority, within a reasonable time, any information which the Administrative Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Administrative Authority upon request, copies of records required by this permit.

II.E.8. Inspection and Entry

The Permittee shall allow the Administrative Authority or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- II.E.8.a. enter upon the Permittee's premises where a regulated activity is located or conducted, or where records must be maintained under the conditions of this permit;
- **II.E.8.b.** have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;
- II.E.8.c. inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this permit; and
- **II.E.8.d.** sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the

Administrative Authority any substances or parameters at any location.

II.E.9. Sample Monitoring and Records

II.E.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, "SW-846", latest revision; Manual of Ground Water Quality Sampling Procedures, 1981, EPA-600/2-81-160, as revised; Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities, 1977, EPA-530/SW-611, as revised; or an equivalent method as specified in the approved Sampling & Analysis Plan referenced in Attachment 1.

II.E.9.b. Records of monitoring information shall include:

- **II.E.9.b.(1)** the date, exact place, and time of sampling or measurements;
- II.E.9.b.(2) the name(s) and signature(s) of the individual(s) who performed the sampling or measurements:
- II.E.9.b.(3) the date(s) analyses were performed;
- **II.E.9.b.(4)** the name(s) and signature(s) of the individual(s) who performed the analyses;
- II.E.9.b.(5) the analytical techniques or methods used;
- II.E.9.b.(6) the results of such analyses; and
- II.E.9.b.(7) associated quality assurance performance data.

II.E.9.c. Laboratory Quality Assurance/Quality Control

In order to ensure the accuracy, precision, and reliability of data generated for use, the Permittee shall submit a statement, certified as specified in LAC 33:V.513 and included in the annual report, indicating that:

II.E.9.c.(1) any commercial laboratory providing analytical results and test data to the Department required by

this permit is accredited by the Louisiana Environmental Laboratory Accreditation Program (LELAP) in accordance with LAC 33:I. Subpart 3, Chapter 45. Laboratory data generated by commercial laboratories not accredited under LELAP will not be accepted by the Department.

LAC 33:1. Subpart 3 (Chapters 45-49) provides requirements for the accreditation program. Regulations and a list of labs that have applied for accreditation are available on the LDEQ website at: http://www.deq.louisiana.gov/portal/Portals/0/laboratory/Accreditation.pdf

In accordance with LAC 33:1.4501, the requirements for LELAP accreditation applies whenever data is:

- submitted on behalf of a facility;
- · required as part of a permit application;
- required by order of the Department;
- required to be included in a monitoring report submitted to the Department;
- required to be submitted by contract; or
- otherwise required by the Department regulations.

This includes, but is not limited to data from RCRA Trial Burns, Risks Burns, Risk Assessments, MACT Comprehensive Performance Tests, and data used for continuing compliance demonstrations.

- II.E.9.c.(2) If the Permittee decides to use their own in-house laboratory for test and analysis, the laboratory is not required to be accredited by LELAP. However, the laboratory must document and submit for approval, quality assurance/quality control procedures that are commensurate with requirements in LAC 33:I.Subpart 3. Laboratory Accreditation.
- II.E.9.c.(3) For approval of equivalent testing or analytical methods, the Permittee may petition for a regulatory amendment under LAC 33:V.105.I and LAC 33:I Chapter 9. In cases where an approved methodology for a parameter/analyte is not available or listed, a request to utilize an alternate

method shall be submitted to the Administrative Authority for approval. Documentation must be submitted to the LDEQ that will verify that the results obtained from the alternate method are equal to or better than those obtained from EPA-accepted methods, as well as those deemed equivalent by the LDEQ.

II.E.10. Retention of Records

The Permittee shall maintain records from all ground water monitoring wells and associated groundwater surface elevations for the active life of the facility and for the post-closure care period.

The Permittee shall maintain records through the active life of the facility (including operation, closure and post-closure periods) as required by LAC 33:V.309.J and LAC 33:V.1529.A, B, and C. All records, including plans, must be furnished upon request and made available at all reasonable times as required by LAC 33:V.1529.C.

File copies shall be kept for LDEQ inspection for a period of not less than three years as required by LAC 33:V.317.B.

The Permittee shall, for the life of the permit, maintain records of all data used to complete the application for this permit and any supplemental information submitted under the <u>Louisiana Hazardous</u> Waste Control Law (LA. R.S. 30:2171 et seq.).

II.E.11. Notices of Planned Physical Facility Changes

The Permittee shall give notice to the Administrative Authority, as soon as possible, of any planned physical alterations or additions to the permitted facility, in accordance with LAC 33:V.309.L.1.

II.E.12. Physical Facility after Modification

For a closed unit being modified, the Permittee may not manage hazardous waste in the modified portion of the closed unit until:

II.E.12.a. the Permittee has submitted to and received approval from the Administrative Authority, by certified mail or hand delivery, a letter signed by the Permittee and an independent registered professional engineer stating that the unit is complete and has been constructed or modified in compliance with the permit; and

II.E.12.b. the Administrative Authority has inspected the modified unit following a request to make final inspection by the Permittee and finds it is in compliance with the conditions of the permit and all applicable sections of LAC 33:V.Subpart 1, and has issued an Order to Proceed. The Permittee may then commence treatment, storage, or disposal of hazardous waste.

II.E.13. Anticipated Noncompliance

The Permittee shall give advance notice to the Administrative Authority of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

H.E.14. Transfer of Permits

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to LAC 33:V.309.L.4, 321.B, 321.C.4, and 1531.

II.E.15. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

II.E.16. Noncompliance Reporting

The Permittee shall report orally within twenty-four (24) hours any noncompliance with the permit that may endanger human health or the environment, except where more immediate notification is required by LAC 33:I.3901, et seq. ("Notification Regulation and Procedures for Unauthorized Discharges" dated November 19, 1985, as amended.) This report shall include the following:

- II.E.16.a. information concerning the release of any hazardous waste that may endanger public drinking water supplies; and
- II.E.16.b. information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, that could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

- **II.E.16.b.(1)** name, address, and telephone number of the owner or operator;
- **II.E.16.b.(2)** name, address, and telephone number of the facility;
- II.E.16.b.(3) date, time, and type of incident;
- II.E.16.b.(4) name and quantity of materials involved;
- II.E.16.b.(5) the extent of injuries, if any,
- II.E.16.b.(6) an assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
- II.E.16.b.(7) estimated quantity and disposition of recovered material that resulted from the incident.

II.E.17. Follow-up Written Report of Noncompliance

The Permittee shall provide a written submission within five (5) days after the time the Permittee becomes aware of any noncompliance which may endanger human health or the environment. However, where more immediate submission is required by LAC 33:I.3901, Regulations and Procedures for Unauthorized "Notification Discharges" dated November 19, 1985, as amended, the report shall be submitted in accordance with those regulations. The written submission shall contain a description of the noncompliance and its cause: the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. If the Administrative Authority waives the requirement, then the Permittee submits a written report within fifteen (15) days after the time the Permittee becomes aware of the circumstances, as required by LAC 33:V.309.L.7.

II.E.18. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time required monitoring reports are submitted. The reports shall contain the information listed in Condition II.E.16 above.

II.E.19. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or that it submitted incorrect information in a permit application, or in any report to the Administrative Authority, the Permittee shall promptly submit such facts or information.

II.E.20. Signatory Requirement

All applications, reports or other information submitted to the Administrative Authority shall be signed and certified according to LAC 33:V.507, 509, 511, and 513.

II.E.21. Schedule of Compliance

The permittee will comply with the following schedule, subject to extensions of time which may be granted as deemed necessary by the Administrative Authority. Upon approval of the various documents, permit modification requests must be submitted in accordance with LAC 33: V. 321.

TASK	SCHEDULE
1. Revised Post Closure Plan	Submit 60 days after effective date of the
1	Hazardous Waste Post-Closure Permit, a
	revised and updated post-closure plan
	with an evaluation of current conditions
	and new permit requirements reflected in
	document.
2. Revised Waste Analysis Plan	Submit 90 days after the effective date of
	the Hazardous Waste Post-Closure
	Permit, an updated plan prepared in
	accordance with LAC 33:V.1519.
3. Corrective Action Plan	Submit 180 days after effective date of
Evaluation Report	the Hazardous Waste Post-Closure
	Permit. The plan should re-evaluate the
	facility's entire remediation system to
	address the contamination of the entire
1	plume. In addition, the document should
	include Corrective Action information
	for Waste Management Units A, B, and
	C.
	,

4. Revised Sampling and Analysis Plan	Submit 180 days after effective date of the Hazardous Waste Post-Closure Permit. The document should be updated in accordance with current site conditions.
5. Revised Groundwater Monitoring Plan	Submit 180 days after effective date of the Hazardous Waste Post-Closure Permit. The document should be updated in accordance with current site conditions.

II.E.22. Additional Operating Standards

(RESERVED)

II.E.23. Updated Documents To Be Submitted Prior To Operation

(RESERVED)

II.E.24. Documents To Be Maintained at Facility Site

- II.E.24.a. Until post-closure is completed and certified by an independent registered professional engineer, the Permittee shall maintain at the facility the following documents and any amendments, revisions, and modifications to these documents. Any revision or changes shall be submitted with the annual report unless previously submitted.
 - **II.E.24.a.(1)** Waste Analysis Plan submitted in accordance with LAC 33: V.1519.
 - H.E.24.a.(2) Personnel Training Plan and the training records as required by LAC 33:V.1515. (see Attachment 1)
 - II.E.24.a.(3) Contingency Plan submitted in accordance with LAC 33:V.1513. (see Attachment 1)
 - II.E.24.a.(4) Arrangements with local authorities in accordance with LAC 33:V.1511.G. (see Attachment 1)
 - II.E.24.a.(5) Post-Closure Plan submitted in accordance with LAC 33:V.3523 and any post-closure care requirements that may be required

initially or through permit modifications in accordance with LAC 33:V.3523. (see Attachment 1)

- II.E.24.a.(6) Cost estimate for facility post-closure care submitted in accordance with LAC 33:V.3709 and any post-closure cost estimate that may be required initially or through permit modifications in accordance with LAC 33:V.3709. (see Attachment1)
- II.E.24.a.(7) Operating Records as required by LAC 33:V.1529 and 2115.D.
- II.E.24.a.(8) Inspection Plan developed in accordance with LAC 33:V.517.G and 1509.B. (see Attachment 1)
- II.E.24.a.(9) Security Plan developed in accordance with LAC 33:V.1507. (see Attachment 1)
- II.E.24.a.(10) Sampling and Analysis Plan in accordance with LAC 33:V.303.Q. (see Attachment 1)
- **II.E.24.b.** All proposed amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Administrative Authority for approval.

II.E.25. Annual Report

An annual report shall be submitted covering all hazardous waste units and their activities during the previous calendar year as required by LAC 33:V.1529.D.

II.E.26. Manifest

The Permittee shall report manifest discrepancies and unmanifested waste as required by LAC 33:V.309.L.8 and 9.

II.E.27. Emissions

Emissions from any hazardous waste facility shall not violate the Louisiana Air Quality Regulations. If air quality standards are exceeded, the site will follow air regulation protocol.

II.E.28. Waste Discharges

Waste discharges from any hazardous waste facility shall not violate the Louisiana Water Quality Regulations. If water standards are exceeded, the site will follow water quality regulation protocol.

II.E.29. Non-Listed Hazardous Waste Facilities

This permit is issued for those hazardous waste facilities listed in Condition IV (Permitted Closed Facilities). If the Permittee determines that an un-permitted hazardous waste facility exists, the Permittee must immediately notify the Administrative Authority in accordance with Condition II.E.19 of the General Permit Conditions.

II.E.30. Compliance With Land Disposal Restrictions

The Permittee shall comply with those land disposal restrictions set forth in LA. R.S. 30:2193, all regulations promulgated thereunder, and the HSWA portion of this permit (Condition VII).

II.E.31. Establishing Permit Conditions

Permits for facilities with pre-existing groundwater contamination are subject to all limits, conditions, remediation and corrective action programs designated under LAC 33:V.311.D and LAC 33:V.3303.

II.E.32. Obligation for Corrective Action

Owners or operators of hazardous waste management units must have all necessary permits during the active life of the unit and for any period necessary to comply with the corrective action requirements in Condition VIII of this permit. The facility is obligated to complete facility-wide corrective action regardless of the operational status of the facility.

II.E.33. Attachments and Documents Incorporated by Reference

All attachments and documents required by this permit, including all plans and schedules, are incorporated, upon approval by the Administrative Authority, into this permit by reference and become an enforceable part of this permit. Since required items are essential elements of this permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action, which may include fines, suspension, or revocation of the permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this permit. Written requests for extension of due dates for submittals may be granted by the Administrative Authority. If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority may modify this permit according to procedures in LAC 33:V.321.

III. GENERAL POST-CLOSURE CONDITIONS

III.A. DESIGN AND OPERATION OF THE POST-CLOSURE UNIT

- III.A.1. The Permittee must maintain and operate all permitted closed units to minimize the possibility of a fire, explosion, or any unauthorized sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or water that could threaten human health or the environment.
- **III.A.2.** The Permittee must not manage any new wastes.

III.B. REQUIRED NOTICE

(RESERVED)

III.C. GENERAL WASTE ANALYSIS

The Permittee shall follow the procedures described in the Waste Analysis Plan and in accordance with LAC 33:V.1519.

- III.C.1. The Permittee shall review the Waste Analysis Plan annually and report to the Administrative Authority, in the annual report, whether any revision is required to stay abreast of changes in EPA methods and/or State regulatory provisions.
- III.C.2. If there is reason to believe that the hazardous waste has changed or the operation generating the hazardous waste has changed, the Permittee shall review and re-characterize all hazardous waste streams generated by the Permittee onsite and treated, stored or disposed onsite. The Permittee must re-characterize wastes in accordance with LAC 33.V.1519.A.3. This re-characterization shall include laboratory analyses which provide information needed to properly treat, store and dispose of the hazardous waste, including physical characteristics and chemical components of the waste. The results of this re-characterization shall be summarized in the Permittee's Annual Report.

- III.C.3. The Permittee shall submit documentation or certification if the Permittee contracts with an outside laboratory for any service required by the Waste Analysis Plan or LAC 33:V.Chapter 15. This documentation or certification shall be resubmitted when a different laboratory is contracted. The Permittee shall also submit documentation that the laboratory complies with the accreditation requirements of LAC 33:I.Chapter 45.
- In accordance with LAC 33:V.1519.B, the waste analysis plan must meet all the sampling and QA/QC procedures of Condition II.E.9. All test procedures used by the Permittee shall be maintained on file by the Permittee and made available to the Administrative Authority upon request.

III.D. SECURITY

The Permittee must comply with the security provisions of LAC 33:V.1507.

III.E. GENERAL INSPECTION REQUIREMENTS

The Permittee must follow the Inspection Plan referenced in Condition II.E.24.a.(8) and Attachment 1. The Permittee must remedy any deterioration or malfunction discovered by an inspection as required by LAC 33:V.1509.C. Records of inspections must be kept as required by LAC 33:V.1509.D. The inspection schedule must include the regulatory requirements of LAC 33:V.517.G, 1509.A and B, and 3523.

III.F. PERSONNEL TRAINING

The Permittee must conduct personnel training as required by LAC 33:V.1515.A, B, and C. The training shall follow the outline referenced in Attachment 1. The Permittee must maintain all training documents and records as required by LAC 33:V. 1515.D and E.

III.G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee must take precautions as required by LAC 33:V.1517 to prevent accidental ignition or reaction of ignitable or reactive wastes.

III.H. LOCATION STANDARDS

III.H.1. The Permittee has furnished evidence that it is in compliance with seismic standards as required by LAC 33:V.517.T.

III.H.2. The Permittee must not manage any hazardous waste on any portion of the property that lies within the 100 year flood plain (as identified in the Flood Insurance Rating Map) unless such areas are raised above this flood level or other means (e.g., levees) are provided to protect such areas from washouts, overtopping by wave action, soil erosion or other effects of such a flood as required by LAC 33:V.1503.B.3. Such site improvements must be certified by independent licensed professional engineers and approved by LDEQ prior to any hazardous waste and/or hazardous waste units being placed thereon.

III.I. PRECIPITATION RUN-ON AND RUN-OFF

The Permittee must provide for the control by diversion or treatment of run-on and run-off resulting from a rainfall of at least twelve (12) inches, occurring during a period of twenty-four (24) hours in conformity with locally available records of a twenty-four (24) hour rainfall as per LAC 33:V.1503.B.2. The Permittee shall comply with the requirements of LAC 33:V.2911 and LAC 33:V.2719.

III.J. HURRICANE EVENTS

The Permittee must initiate those applicable portions of the Contingency Plan during a hurricane as well as appropriate actions required by LAC 33:V.1507, 1509 and 1511.

III.K. PREPAREDNESS AND PREVENTION

III.K.1. Required Equipment

At a minimum, the Permittee must install and maintain the equipment set forth in the Contingency Plan, as required by LAC 33:V.1511.C.

III.K.2. Testing and Maintenance of Equipment

The Permittee must test and maintain the equipment specified in Condition III.K.1 to insure its proper operation in time of emergency. The testing and maintenance of the equipment must be documented in the operating record.

III.K.3. Access to Communications or Alarm Systems

The Permittee must maintain access to the communications or alarm system as required by LAC 33:V.1511.E.l and 1511.E.2.

III.K.4. Arrangements with Local Authorities

The Permittee shall document in the annual report that the requirements of LAC 33:V.1511.G have been met. This documentation shall include those state and local agencies involved and those facilities and operations covered. Documentation of written arrangements with state and local agencies shall also be included in this report. Where state or local authorities decline to enter into such arrangements, the Permittee must document the refusal in the operating record.

III.L. CONTINGENCY PLAN

III.L.1. Implementation of Plan

The Permittee must immediately carry out the provisions of the Contingency Plan, and follow the emergency procedures described by LAC 33:V.1513.F whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that threaten or could threaten human health or the environment.

III.L.2. Copies of Plan

The Permittee must comply with the requirements of LAC 33:V.1513.C.

III.L.3. Amendments to Plan

The Permittee must review and immediately amend, if necessary, the Contingency Plan as required by LAC 33:V.1513.D.

III.L.4. Emergency Coordinator

The Permittee must comply with the requirements of LAC 33:V.1513.E, and 322.B.6 concerning the emergency coordinator.

III.M. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of LAC 33:V.Chapter 9 and 11.

III.N. RECORD KEEPING AND REPORTING

III.N.1. Operating Record

The Permittee shall maintain a written operating record at the facility in accordance with LAC 33:V.1529.A, B, and C.

III.N.2. Annual Report

The Permittee must comply with the annual report requirements of LAC 33:V.1529.D.

III.N.3. Operations Manual

The Permittee shall compile and keep current an operations manual covering all aspects of the Permittee's treatment, storage and disposal facilities.

III.O. POST-CLOSURE

III.O.1. Post-Closure Care

The Permittee must manage the Drip Pad and Waste Management Units A, B, and C in accordance with this permit, LAC 33:V. 2521, 2809, 2911, and Chapter 35, Subchapter B.

III.O.2. Amendment to Post-Closure Permit

The Permittee must request modification to this post-closure permit when necessary, in accordance with LAC 33:V.3523.D. and LAC 33:V.321.

III.O.3. Post-Closure Maintenance

After final closure, the Permittee must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527, including maintenance and monitoring throughout the post-closure care period specified in the permit under LAC 33:V.3521.A.1. The Permittee must maintain all units in post-closure according to the requirements in Condition V.B.

III.O.4. Post-Closure Restrictions

The Administrative Authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507, during part or all of the post-closure care period when

access by the public or domestic livestock may pose a hazard to human health.

III.O.5. Post-Closure Property or Site Use

III.O.5.a. Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the permitted closed unit's monitoring systems, unless the Administrative Authority finds that the disturbance:

III.O.5.a.i. is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

III.O.5.a.ii. is necessary to reduce a threat to human health or the environment.

III.O.5.b. Any post-closure activity other than that specified in this permit must have prior approval of the Administrative Authority.

III.O.6. Post-Closure Contact

The Permittee must provide the name, address, and phone number of the person or office to contact about the permitted post-closure units during the post-closure care period.

III.O.7. Certification of Completion of Post-Closure Care

No later than sixty (60) days after completion of the established post-closure care period for the specified unit, the Permittee must submit to the Administrative Authority, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit(s) was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the Permittee and an independent registered professional engineer. Within 60 days after receipt of the certification the Administrative Authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Administrative Authority has reason to believe that post-closure

care was not conducted in accordance with the approved postclosure plan.

The certification of post-closure care shall include the certification statement found in the LAC 33:V.513.A or the current certification statement in the Louisiana hazardous waste regulations at the time of completion of post-closure care.

III.P. COST ESTIMATE FOR CARE OF THE POST-CLOSURE UNIT

- III.P.1. The Permittee must maintain a cost estimate for the permitted and associated structures as required by LAC 33:V.3709.
- III.P.2. The Permittee must maintain and adjust the post-closure cost estimate for inflation, as specified in LAC 33:V.3709.B, C, D, and for other circumstances that increase the cost of post-closure.
- III.P.3. The Permittee must base all post-closure cost estimates on the assumption that a third party contractor performs post-closure monitoring and maintenance in accordance with LAC 33:V.3709.A.
- III.P.4. The Permittee must consider the inventory and process conditions and their impact on the post-closure cost estimate for any resubmittal
- III.P.5. During the life of the facility, the Permittee must keep, at the facility, its latest post-closure cost estimates, as necessary, to comply with LAC 33:V.3709.D.
- III.P.6. Throughout the active life of the facility, the Permittee must adjust and revise its post-closure cost estimates, as necessary, to comply with the provisions of LAC 33:V.3709.

III.Q. FINANCIAL ASSURANCE FOR THE POST-CLOSURE UNIT

Throughout the post-closure care period, the Permittee must provide updates for its financial assurance mechanisms, as necessary, to comply with the provisions of LAC 33:V.3711.

III.R. LIABILITY REQUIREMENTS

(RESERVED)

III.S. INCAPACITY OF THE PERMITTEE

The Permittee must comply with LAC 33:V.3717 whenever bankruptcy is initiated for the Permittee or its institutions providing financial assurance. If insurance is used for compliance with LAC 33:V.3715, the Permittee must immediately notify the Administrative Authority if the insurance company is placed in receivership. The Permittee must establish other financial assurance or liability coverage within sixty (60) days after such an event.

III.T. POST-CLOSURE NOTICES

If the Permittee or any subsequent Permittee of the land upon which this hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner or contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in LAC 33:V, Chapters 3 and 7. The Permittee must demonstrate that the removal of hazardous wastes will satisfy the criteria of LAC 33:V.3521. By removing hazardous waste, the Permittee may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V, Subpart 1. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the Permittee may request that the Administrative Authority approve either:

- III.T.1. the removal of the notation on the deed to the facility property or other instrument normally examined during title search; or
- III.T.2. the addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

IV. PERMITTED CLOSED UNITS

This permit is applicable only to the units known as the Drip Pad, and Waste Management Areas A, B, and C which include Evaporation Pond-1, Evaporation Pond-2, Holding Pond, Waste Water Pond-1, Waste Water Pond-2, Waste Water Pond-3, Creosote Recovery Pond, Pentachlorophenol Recovery Pond, and the Sludge Pond located on the property of International Paper, Beauregard Parish, Louisiana. This permit also applies to any appurtenances associated with these units. The appurtenances are defined as any run-on/run-off control systems, leachate collection/leak detection systems, tanks, and/or piping and instrumentation associated with these regulated units. If any additional appurtenances are added in the future, they would be addressed through a permit modification as required by regulation and this permit.

V. PERMIT CONDITIONS APPLICABLE TO PERMITTED CLOSED UNITS

V.A. POST-CLOSURE CARE PERIOD

The post-closure care period will be in effect for the period of thirty (30) years from the date indicated below for each unit, unless extended or shortened by the Administrative Authority, as specified in LAC 33:V.3521.A.

- V.A.1. Drip Pad: On July 14, 1999, the post-closure care period began. The LDEQ verified that the unit was closed in accordance with the approved Closure Plan and all applicable regulations.
- V.A.2. Waste Management Area A: On October 23, 1984, the post-closure care period began. The Waste Management Area consists of Evaporation Pond 1, Evaporation Pond 2 and Holding Pond. The LDEQ verified that all units associated with WMA-A were closed in accordance with the approved Closure Plan and all applicable regulations.
- V.A.3. Waste Management Area B. On October 23, 1984, the postclosure care period began. The Waste Management Area consists of Pentachloraphenol Recovery Pond, Creosote Recovery Pond, and Wasterwater Ponds, 1, 2, and 3. The LDEQ verified that the units were closed in accordance with the approved Closure Plan and all applicable regulations.
- V.A.4 Waste Management Area C: On October 23, 1984, the post-closure care period began. The Waste Management Area consists of a Sludge Pond. The LDEQ verified that the units were closed in accordance with the approved Closure Plan and all applicable regulations.

V.B. POST-CLOSURE MAINTENANCE

After final closure, the owner or operator must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527, Condition III.O of this permit and the approved post-closure plan. This shall include maintenance and monitoring throughout the post-closure care period specified in the permit under Condition V.A and LAC 33:V.3521.A.1. The owner or operator must:

- **V.B.1.** For all permitted units in post-closure, the Permittee must:
 - V.B.1.a. maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

V.B.1.b. maintain the final cover designed and constructed to:

V.B.1.b.i. function with minimal maintenance;

V.B.1.b.ii. promote drainage and minimize erosion or

abrasion of the final cover;

V.B.1.b.iii. accommodate settling and subsidence, as

necessary, so that the cover's integrity is

maintained;

V.B.1.b.iv. have a permeability less than or equal to the

permeability of any bottom liner system or

natural subsoils present at the units;

V.B.1.c. maintain and monitor the groundwater monitoring system

and comply with all other applicable requirements of LAC

33:V. Chapter 33; and

V.B.1.d. manage and maintain a run-on and run-off control system to

prevent erosion or other damage to the final cover;

V.B.2. For the Drip pad, the Permittee must:

V.B.2.a. leachate collection system

(RESERVED)

V.B.3.b. protect and maintain surveyed benchmarks used in

complying with LAC 33.V. Chapter 33.

VI. GROUNDWATER PROTECTION

VI.A. APPLICABILITY

The regulations of LAC 33:V, Chapters 3, 5, 15, 25, 28, 29, 33, and 35 of the Louisiana Hazardous Waste Control Law Revised Statute (R.S.) 30:2203 of the Environmental Quality Act, R.S.30:2001 et seq., and the provisions of this section shall apply to groundwater protection programs at the permitted post-closure units, property of International Paper, Beauregard Parish, Louisiana. All requirements and conditions of this section must be satisfied and shall apply until the Administrative Authority has accepted the certification of completion of post-closure care required by regulation and under Condition III.O.7. of this permit. The units referenced in Condition IV of the permit are subject to post-closure groundwater monitoring.

If groundwater contamination is confirmed as a result of operations related to past or present hazardous waste management facilities associated with this site, the Permittee shall establish, expand or continue, assessment and corrective action programs in accordance with the requirements of LAC 33:V.Chapter 33 and as subsequently directed by the Administrative Authority.

VI.B. REQUIRED PROGRAMS

VI.B.1. WASTE MANAGEMENT AREA C

For Waste Management Area C, the Permittee must continue to conduct detection monitoring from the existing groundwater monitoring system specified in Conditions VI.C.-VI.H. and Condition VI.K. of this permit. The permit must be modified to establish a compliance monitoring program (Condition VI.I.) whenever hazardous waste constituents are confirmed in any monitoring well. Subsequently, the permit must be modified to establish a corrective action program as necessary (Condition VI.J.).

All wells listed on Table 1 must be maintained, protected from moving equipment and cannot be abandoned unless exempted from the program at a later date by the Administrative Authority. When the integrity of the well is threatened, it shall be replaced with a new well, in conformance with a work plan approved by the Administrative Authority. The construction of groundwater monitoring wells must conform to the standards and guidelines specified in "CONSTRUCTION GROUNDWATER GEOTECHNICAL BOREHOLES AND OF MONITORING SYSTEMS HANDBOOK", dated May 1993. This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. Any required new wells should be installed within thirty (30) days of approval of the work plan by the Administrative Authority. Upon completion of new or replacement wells, a copy of DOTD-GW-1S, Louisiana Department of Transportation and Development Well Registration Short Form, is to be provided to the Administrative Authority. The entire groundwater monitoring system must be approved by the Administrative Authority. The Permittee must include in the Annual Report revised facility maps, which will show all its monitoring, assessment, compliance, and corrective action wells.

VI.B.2. WASTE MANAGEMENT AREA A, WASTE MANAGEMENT AREA B, and DRIP PAD

(RESERVED per Condition VI.L.)

VI.C. GROUNDWATER PROTECTION STANDARD

VI.C.1. The Permittee must comply with conditions specified in this permit that are designed to insure that hazardous waste and hazardous waste constituents do not exceed the concentration limits (see Condition VI.D) in the uppermost permeable zones underlying the waste management areas, beyond or below the points of

compliance (see Condition VI.E) during the compliance period (see Condition VI.F). The protection standard does not exempt the Permittee from required corrective actions regarding contamination detected by wells not assigned as groundwater compliance points.

- VI.C.2. The Permittee must utilize and maintain the present groundwater monitoring system described by the most current approved Sampling and Analysis Plan.
- VI.C.3. The Permittee must also measure pH and specific conductance as standard indicators of groundwater contamination, which will be used to indicate well integrity and possible groundwater contamination. The results of these analyses must be recorded in the field logbook.
- VI.C.4. All wells must be maintained so that surface infiltration is prohibited. Groundwater samples shall be monitored and analyzed for turbidity. Samples containing less than five (5) NTU (nephelometric turbidity unit) are acceptable for analysis when the analytical method is sensitive to turbidity (such as the analysis of metals). Samples containing greater than five (5) NTU are only acceptable when well development is certified by a qualified hydrogeologist as "the best obtainable". An evaluation of turbidity must accompany all potentially affected analytical values.

VI.D. HAZARDOUS CONSTITUENTS, PARAMETERS, ANALYTICAL FREQUENCY AND CONCENTRATION LIMITS

The wells, hazardous constituents, concentration limits and sampling frequency to which the protection standards of LAC 33:V.3305 apply are shown in the approved Sampling and Analysis Plan referenced in Attachment 1 and in Condition VI, Tables 1, 2 and 3 herein.

The Permittee must continue existing corrective actions or institute corrective actions in all areas associated with the permitted post-closure unit and appurtenances where groundwater has been affected by hazardous wastes, hazardous constituents, or parameters exceeding the assigned concentration limits, and implement corrective measures in other areas which may be discovered to exceed these limits in the future.

The Permittee must notify the Administrative Authority in accordance with the schedule specified in Conditions VI.H, VI.I, and VI.J, as applicable, when any of the groundwater monitoring parameters are detected in concentrations equal to or exceeding the designated limits at the points of compliance or upon first detection in any other monitoring well at the plant site.

VI.E. POINT OF COMPLIANCE

The point of compliance for Waste Management Area C at which the groundwater protection standard of LAC 33:V.3305.A applies, and at which semiannual monitoring must be conducted, is the imaginary vertical plane on the downgradient boundary of the unit that connects Wells DA-5, DA-33, and DB-33.

When contamination is detected in the uppermost permeable zone underlying the waste management area, the next vertical aquifer or permeable zone must also be monitored during compliance and corrective action periods. The horizontal limit of compliance must be the surface following an imaginary line connecting the risers of monitoring wells listed as Point of Compliance wells in Table 1 unless amended through permit modifications by the Administrative Authority in the future. The vertical limit of compliance must be the Uppermost Aquifer. Groundwater quality at each monitoring well identified below must be determined according to the most current approved Sampling and Analysis Plan and Condition VI.C, unless subsequent contamination is detected as per LAC 33:V.3303, then monitoring must be conducted as per Conditions VI.H, I and J of this permit.

TABLE 1
WASTE MANAGEMENT AREA C
MONITORING WELL NETWORK

WELL #	WELL TYPE	MONITORED ZONE	SAMPLING FREQUENCY
DA-2	Upgradient	Bentley Sand (upper)	Semiannual
DA-5	Point of Compliance	Bentley Sand (upper)	Semiannual
DA-33	Point of Compliance	Bentley Sand (upper)	Semiannual
DB-33	Point of Compliance	Bentley Sand (lower)	Semiannual

TABLE 2 WASTE MANAGEMENT AREA C Ground Water Protection Standard Constituents

Parameter	Analytical ¹ Method	Concentration ² Limit	Practical Quantitation ³ Limit (PQL)
Benzene	8260B	$5.0 \times 10^{-03} \text{ mg/l}$.005 mg/l
Toluene	8260B	1.0 mg/l	1.0 mg/l
Benzo(a)anthracene	e 8270C	$7.8 \times 10^{-3} \text{ mg/l}$	*footnote #3
Fluoranthene	8270C	$1.5 \times 10^{-1} \text{ mg/l}$	0.15 mg/l
Chrysene	8270C	1.6 x 10 ⁻³ mg/l	*footnote #3
Phenol	8270C	1.8 x 10 ⁻¹ mg/l	.010 mg/l
o-Cresol	8270C	1.8 x 10 ⁻¹ mg/l	.010 mg/l
m-Cresol	8270C	1.8 x 10 ⁻¹ mg/l	.010 mg/l
p-Cresol	8270C	$1.8 \times 10^{-2} \text{ mg/l}$.010 mg/l
Naphthalene	8270C	$1.0 \times 10^{-2} \text{ mg/l}$.010 mg/l
2,4-Dimethylpheno	1 8270C	7.2 x 10 ⁻² mg/l	.072 mg/l
Pentachlorophenol	8270C	$1.0 \times 10^{-3} \text{ mg/l}$	*footnote #3

1 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition (EPA Publication Number SW-846, 1986 as amended): must be in accordance with the latest edition of SW-846.

3The permitee must report to the Administrative Authority, any detectable level of compounds on Table 2, even if lower than the detection limit (PQL or MDL). PQL denotes the lowest analyte concentration in a given matrix (groundwater) that the Administrative Authority believes a competent lab can be expected to achieve consistently. Samples must be analyzed using an SW-846 method that meets the listed concentration limit.

² Concentration limits that apply to the groundwater protection standard under LAC 33:V.3305 unless changed through permit modification by the Administrative Authority. The groundwater protection standards were based upon groundwater screening standard (GW SS) developed by the LDEQ Risk Evaluation Corrective Action Program (RECAP). If technically feasible using Method SW-846 8270, the reported detection limit, either the PQL or the method detection limit (MDL), should be less than or equal to the calculated groundwater screening standards.

Table 3 WASTE MANAGEMENT AREA C Sample Bottle and Preservative Specifications

Parameters	Container Type	Preservation Method	
Benzene	Glass, 3-40 ml Vials with Teflon lined septum	Cool to 4°C Zero headspace	
Toluene	Glass, 3-40 ml Vials with Teflon lined septum	Cool to 4°C Zero headspace	
Benzo(a)anthracene	Amber Glass	Cool to 4°C	
Fluoranthene	Amber Glass	Cool to 4°C	
Chrysene	Amber Glass	Cool to 4°C	
Phenol	Amber Glass	Cool to 4°C	
Cresol	Amber Glass	Cool to 4°C	
Naphthalene	Amber Glass	Cool to 4°C	
2,4-Dimethylphenol	Amber Glass	Cool to 4°C	
Pentachlorophenol	Amber Glass	Cool to 4°C	

Table 4a WASTE MANAGEMENT AREA C Semi-Annual and Annual Reporting Requirements

Parameter	Analysis	Frequency	Reporting	Graphical Representation	Statistically analyzed
Water elevations	Field	Every sampling event	In groundwater collection forms and Semi-Annual GW report	Potentiometric maps	Not required
Quality properties of groundwater sampled	Color, odor, remarks etc.	Every sampling event	In groundwater collection forms, field log book, and Semi-Annual GW report	No	Not required
pH Specific Conductance Turbidity	Field or Lab	Every sampling event	In groundwater collection forms, field log book, and Semi-Annual GW report	pH, specific conductance will be graphed value vs. time	
Naphthalene 2,4-Dimethylphenol Pentachlorophenol Benzo(a)anthracene Fluoranthracene Chrysene Phenol Cresol Benzene Toluene	Lab	Every Sampling event	Lab results reported in the Semi-Annual GW report	Not Required	Will be subject to demonstrations or evaluations regarding statistical significance of any parameter detections
QA/QC lab	n/a	Evaluated Every sampling event	Evaluated and reported semi-annually		
Quality properties of the groundwater	Field	Every sampling event	Evaluated and reported semi-annually	Not applicable	Not applicable
Maintenance of Monitoring Equipment	Field	Every sampling event	Evaluated and reported semi-annually		
Physical Well condition	Field	Every sampling event	Evaluated and reported semi-annually		
Purge water collection	n/a	Every sampling event	Disposition of purge water reported semi-annually		
QA/QC lab	n/a	Evaluated Every sampling event	Evaluated and reported semi-annually		

Table 4b WASTE MANAGEMENT AREA C Additional Annual Reporting Requirements

Parameter	Analysis	Frequency	Reporting	Graphical Representation	Statistically analyzed
Table 4 GW Monitoring Constituents	Lab	Annual sampling (POC wells only)	Concentrations reported in the Semi-Annual GW report	Not required	Will be subject to demonstrations or evaluations
Total depth measurements of the wells	Field	At least once a year	Total depth of each well will be measured at least annually and evaluated		

VI.F. COMPLIANCE PERIOD

The compliance period, during which the groundwater protection standard of LAC 33:V.3305.A applies, continues until the Administrative Authority has accepted the certification of completion of post-closure care required by regulation and under Condition III.0.7. of this permit. However, if a corrective action program has been implemented, the compliance period can not end until after the Permittee has demonstrated that the corrective action has been effectively implemented and the groundwater protection standard of LAC 33:V.3305.A has not been exceeded for a period of three (3) consecutive years.

VI.G. GENERAL REQUIREMENTS

- VI.G.1. The Permittee's groundwater monitoring system must consist of wells designated in Table 1, unless changed in the future by the Administrative Authority through permit modification.
- VI.G.2. Upgradient well, DA-2, must always yield groundwater samples from the uppermost water bearing zone that are representative of groundwater that has not been affected by possible leakage from the waste management units. Downgradient and vertical point of compliance wells must yield groundwater samples from the water bearing zones that represent the quality of groundwater beneath the facilities that flows to the points of compliance.
- VI.G.3. The Permittee must maintain the structural and mechanical integrity of all wells and provide protection from accidental damage and surface infiltration, as well as implement a monitoring well inspection schedule. A written report on damage to any well must be submitted to the Administrative Authority in accordance with Condition II.E.17 of this permit.

- VI.G.4. The Permittee must conform to the sampling and analysis requirements listed in Conditions VI.C, H, I, and J, herein, and as required by LAC 33:V.3315. A Semi-Annual Groundwater Monitoring Report must be prepared for each semi-annual sampling event and submitted to the Office of Environmental Assessment, Environmental Technology Division. Table 4a of this permit contains the required components for the Semi-Annual Groundwater Monitoring Reports.
- VI.G.5. The Permittee must use one of the statistical procedures referenced in LAC 33:V.3315.H in determining whether background values or concentrations have been exceeded for the detection monitoring parameters contained in Table 2. The groundwater quality parameters referenced in Condition VI.C.3. do not require statistical evaluation but must be reported and graphically represented for each semi-annual sampling event.
- VI.G.6. As a minimum, the Permittee must tabulate the results of the detection monitoring parameters in the Semi-Annual Groundwater Monitoring Report prepared for each sampling episode. Should a parameter be detected, the Permittee must also graphically represent (i.e., isopleth maps and concentration versus time graphs) the results.
- VI.G.7. Records of all sampling and analytical work must be maintained at the site during the life of the facilities, including post-closure care periods and made available upon request by the Administrative Authority.
- VI.G.8. An annual groundwater report must be submitted each year no later than March 1, as required by LAC 33:V.1529.D.8. This report must summarize and interpret all groundwater activities for the preceding calendar year including an evaluation of the monitoring strategy in relation to the direction of groundwater flow and locations of wells associated with the facilities. Applicable calculations must also include groundwater flow contaminant migration rates (as applicable), statistical comparisons (as applicable), and any other information as it regards corrective actions required by this permit. Tables 4a and 4b of the permit contain components to be included in the annual groundwater report.

VI.H. DETECTION MONITORING PROGRAM

VI.H.1. Any downgradient wells that become contaminated, but eventually produce groundwater samples with analytical results below the permitted concentration limits for monitored constituents for at least three (3) years as the result of a corrective action program, may be re-scheduled for detection monitoring on a schedule approved by the Administrative Authority.

- VI.H.2. The Permittee must utilize the existing groundwater detection monitoring system as required by LAC 33:V.3315 to obtain samples that provide a reliable indication of the presence of hazardous wastes or constituents in groundwater when compared to approved concentration limits listed in Table 2.
- VI.H.3. Detection systems shall be sampled according to the schedule specified in the most current approved Sampling and Analysis Plan. Within fifteen days after completing the analytical work and subsequent review of analyses and computations, the Permittee shall compile reports containing the test results, the statistical comparative data, groundwater potentiometric maps, graphs, copies of the field log book notes and chain of custody where appropriate, and a list of the parameters that were statistically significant for the sampling event. This information shall be maintained at the facility as provided in Condition VI.G.7, except that statistically significant parameter measurements must be forwarded for review by the Administrative Authority in accordance with Condition VI.H.5.
- VI.H.4. The monitoring system outlined in Table 1 must be utilized for groundwater sampling.
- VI.H.5. If the Permittee determines that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to LAC 33:V.3317.A. at any monitoring well at the compliance point, the Permittee must do the following:
 - VI.H.5.a. Notify the Administrative Authority of this finding in writing within seven (7) days. This notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.
 - VI.H.5.b. Immediately sample the groundwater in all monitoring wells for confirmation and determine whether constituents listed in LAC 33:V.3325. Table 4 are present, and if so, in what concentration.
 - VI.H.5.c. For any LAC 33:V.3325. Table 4 compounds found in the analysis pursuant to Condition VI.H.5.b above, the Permittee may resample within one (1) month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents

will form the basis for compliance monitoring. If the Permittee does not resample for the compounds found pursuant to Condition VI.H.5.b above, the hazardous constituents found during this initial analysis will form the basis for compliance monitoring. If contamination is not confirmed, the Permittee shall continue monitoring according to the schedule specified in the most current approved Sampling and Analysis Plan. The Permittee must address confirmed groundwater contamination problems at the direction of the Administrative Authority, regardless of the source of the contamination.

- VI.H.6. The Permittee must submit an application for a permit modification to the Administrative Authority within ninety (90) days from the date of the confirmation of contamination. The application must include:
 - VI.H.6.a. An identification of the concentration of any LAC 33:V. 3325. Table 4 constituent detected in the groundwater at each monitoring well at the compliance point;
 - VI.H.6.b. Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of LAC 33:V.3319;
 - VI.H.6.c. Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of LAC 33:V.3319; and
 - VI.H.6.d. For each hazardous constituent detected (as defined in LAC 33:V.3301.A.1) at the compliance point, a proposed concentration limit under LAC 33:V.3309.
- VI.H.7. If the Permittee determines that there is statistically significant difference for analytical parameters of hazardous constituents, which are specified pursuant to the groundwater protection standard, listed in most current approved Sampling and Analysis Plan or Condition VI.D at any monitoring well at the compliance point, the Permittee may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an

artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. The Permittee may make a demonstration under this Paragraph in addition to, or in lieu of, submitting a permit modification application; however, the Permittee is not relieved of the requirement to submit a permit modification application within the time specified in LAC 33:V.3317.G.4 unless the demonstration made under this Paragraph successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this Paragraph the Permittee must:

- VI.H.7.a. Notify the Administrative Authority in writing within seven (7) days of determining statistically significant evidence of contamination at the compliance point that he or she intends to make a demonstration under this Paragraph;
- VI.H.7.b. Within ninety (90) days, submit a report to the Administrative Authority that demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;
- VI.H.7.c. Within ninety (90) days, submit to the Administrative Authority an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and
- VI.H.7.d. Continue to monitor in accordance with the detection monitoring program established under this permit.
- VI.H.8. If the Permittee determines that the detection monitoring program no longer satisfies the requirements of this permit, the Permittee, within 90 days, shall submit an application for a permit modification to make any appropriate changes to the program.

VI.I. COMPLIANCE MONITORING

The Permittee must conduct a compliance monitoring program in accordance with LAC 33: V.3319 whenever hazardous waste constituents are confirmed in any monitoring well.

VI.1.1. The Permittee must determine the concentration of each hazardous constituent listed in the most current approved Sampling and Analysis Plan at least semiannually during compliance monitoring periods (from groundwater in the wells required by Condition

VI.C.2). At least annually the Permittee must analyze samples from all monitoring wells at the compliance points for all constituents listed in LAC 33:V.3325, Table 4, to determine whether additional hazardous constituents are present in the uppermost aquifer (and, if so, at what concentration), pursuant to procedures of this permit. If the Permittee finds LAC 33:V.3325, Table 4 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the Permittee may re-sample within one month and repeat LAC 33:V.3325, Table 4 analysis. If the second analysis confirms the presence of new constituents, the Permittee must report the concentrations of these additional constituents to the Administrative Authority within seven (7) days after the completion of the second analysis and add them to the monitoring list. If the Permittee chooses not to re-sample, then he or she must report the concentrations of these additional constituents to the Administrative Authority within seven (7) days after completion of the initial analysis and add them to the monitoring list.

- VI.1.2. If the Permittee determines, pursuant to LAC 33:V.3319.D, and Condition VI.C that any concentration limits under LAC 33:V.3309 are being exceeded at any monitoring well at the point of compliance, he must:
 - VI.I.2.a. notify the Administrative Authority of this finding in writing within seven (7) days. The notification must indicate which concentration limits have been exceeded and list the contaminants and concentrations; and
 - VI.1.2.b. submit, to the Administrative Authority, an application for a permit modification to establish or modify corrective action programs meeting the requirements of LAC 33:V.3321 within 180 days, or within ninety (90) days if a certified engineering feasibility study has been previously submitted to the Administrative Authority under LAC 33:V.3317.G.5.b. The application must include the following information:
 - VI.I.2.b.i. a detailed description and schedule for assessment and corrective actions that will achieve compliance with the groundwater protection standard specified in Condition VI.D of this permit under LAC 33:V.3319.A; and
 - VI.I.2.b.ii. a geotechnical plan (certified by a qualified geologist or a geotechnical engineer) to

demonstrate the effectiveness of the planned corrective actions. This plan may incorporate the compliance monitoring program developed to meet the requirements of this permit, except that the Permittee will be required to monitor as frequently as necessary (as required in Condition VI.J.1) to assure that sufficient data will be generated for demonstrating the effectiveness of the corrective actions; and

- VI.1.2.c. If the Permittee determines, pursuant to LAC 33:V.3319.D, that the groundwater concentration limits under Condition VI.D are being exceeded at any monitoring well pursuant to VI.H.5, he or she may demonstrate that a source other than a regulated unit caused the contamination, or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation, or natural variation in the groundwater. In making a demonstration under this Condition, the Permittee, must:
 - VI.I.2.c.i. notify the Administrative Authority in writing within seven (7) days that he or she intends to make a demonstration under this condition;
 - VI.I.2.c.ii. within ninety (90) days, submit a report to the Administrative Authority which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from an error in sampling, analysis or evaluation;
 - VI.I.2.c.iii. within ninety (90) days, submit to the Administrative Authority an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and
 - VI.I.2.c.iv. continue to monitor in accordance with the compliance monitoring program established under this permit.

VI.1.2.d. If the Permittee determines that the compliance monitoring program no longer satisfies the requirements of this permit, he or she must, within ninety (90) days submit an application for a permit modification to make any appropriate changes to the program.

VI.J. CORRECTIVE ACTION PROGRAM

- If subsequent groundwater contamination is confirmed as a result VI.J.1. of operations related to past or present hazardous waste management facilities identified in Condition VI.B.1 of this permit, the Permittee must establish, expand, or continue any corrective action programs in accordance with the requirements of LAC 33:V.3321, and as subsequently directed by the Administrative Authority. Water quality sampling, water level measurements and the general compilation of data to demonstrate the effectiveness of existing and new corrective action programs must be made on a semiannual basis until compliance with groundwater protection standards is achieved for at least three (3) years or until this requirement is terminated in writing by the Administrative Authority (after the data indicates adequate control of contaminant migration and concentration increases). The effectiveness of the corrective actions by the Permittee must be reported semi-annually to the Administrative Authority as stipulated in LAC 33:V.3321.G., and must include the following:
 - VI.J.1.a. a facility map showing all upgradient, assessment, plume defining, point of compliance monitoring wells and recovery wells and identifying zones in which wells are screened;
 - VI.J.1.b. a table showing well number, well depth, screened interval, zone monitored, well diameter and screen and casing material for all upgradient, assessment, plume defining, point of compliance monitoring wells, and recovery wells and the type of pump used if the well is a recovery well;
 - VI.J.1.c. a summary of analytical data for all upgradient, assessment, plume defining, point of compliance monitoring wells, and recovery wells for the reporting period;
 - VI.J.1.d. a discussion of any significant changes in the analytical data from all upgradient, assessment, plume defining,

- point of compliance monitoring wells, and recovery wells for the reporting period;
- VI.J.1.e. contaminant concentration isopleths for each monitored zone and each contaminant;
- VI.J.1.f. water level measurements and potentiometric surface maps for each monitored zone for the reporting period;
- VI.J.1.g. total volume of liquids removed and the volume of contaminants removed for each components of the system (i.e. recovery wells, French drain systems, etc.) and cumulative amount for the entire system for the reporting period and total volume to date;
- VI.J.1.h. a discussion of the down time for any well or part of the system for the reporting period and actions taken by the facility to return the system to normal operations and maximum efficiency,
- VI.J.1.i. concentration versus time graphs for all wells used to determine the effectiveness of the contaminant recovery program; and
- VI.J.1.j. a discussion of the effectiveness and progress of remedial activities.
- VI.J.2. Additionally, and in accordance with the authority of Louisiana's Hazardous Waste Control Law, R.S. 30:2203, of the Environmental Quality Act, R.S. 30:2001 et seq., and as allowed by LAC 33:V.309.L.7. pertaining to special conditions of the groundwater section, the Permittee must notify the Administrative Authority upon learning of the discharge of any waste or substance into the groundwaters of the State at the International Paper plant site. As a result of such discharges to ground waters, the permittee shall:
 - VI.J.2.a. notify the Administrative Authority of the nature and circumstances of the discharge within seven (7) days of discovery.
 - VI.J.2.b. submit adequate plans and schedules certified by a qualified geologist or geotechnical engineer to evaluate the extent of the discharge and need for corrective actions within ninety (90) days from the notification in Condition VI.J.2.a above; and

VI.J.2.c. submit a schedule and plans for corrective actions as directed by the Administrative Authority within sixty (60) days from completion of the groundwater evaluation in Condition VI.J.2.b. above.

VI.K. ABANDONMENT OF MONITORING WELLS AND GEOTECHNICAL BOREHOLES

The Permittee must provide for the sealing of any vertical migration path resulting from exploratory boring, leachate collection or detection systems and/or groundwater monitoring programs as provided in LAC 33:V.3323, and follow abandonment procedures conforming to the standards and guidelines specified in "CONSTRUCTION OF GEOTECHNICAL BOREHOLES AND GROUNDWATER MONITORING SYSTEMS HANDBOOK", dated May 1993 ("Construction Handbook", May 1993). This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. A work plan for the plugging and abandonment of a well must be submitted for approval by the Administrative Authority, whenever such migration pathways are discovered. Upon completion of well abandonment, a copy of DOTD-GW-2, Louisiana Department of Transportation and Development Well Plugging and Abandonment Form, must be submitted to the Administrative Authority.

VI.L. ALTERNATIVE MONITORING REQUIREMENTS AT WASTE MANAGEMENT AREA A, WASTE MANAGEMENT AREA B, AND DRIP PAD

Pursuant to LAC 33:V.3301.G, the Administrative Authority has determined that: 1) the regulated units identified as Waste Management Area A, Waste Area B, and the Drip Pad, are situated among solid waste management units (SWMU) or areas of concern (AOC), a release has occurred, and both the regulated units and SWMU(s) or AOC are likely to have contributed to the release; and 2) it is not necessary to apply the groundwater monitoring and corrective action requirements of LAC 33:V.Chapter 33 because alternative requirements will protect human health and the environment. Accordingly, the Administrative Authority may replace all or part of the requirements of LAC 33:V.Chapter 33, applying to a regulated unit (i.e., LAC 33:V.3303 through 3321) with alternative requirements for groundwater monitoring and corrective action for releases to groundwater. This section provides a description of the alternative monitoring requirements.

Except as indicated below, in lieu of LAC 33:V.3303 through 3311 and LAC 33:V.3315 through 3321 being applied to the regulated units, the Permittee shall comply with LAC 33:V.3322 (Corrective Action) and as further delineated in Condition VIII (Special Conditions Pursuant to Hazardous and Solid Waste Amendments-Corrective Action Strategy) of this permit. The Permittee must comply with these alternative monitoring requirements during the compliance period (see Condition VI.F.) unless the permit is otherwise modified by the Administrative Authority. The Permittee must continue to conduct monitoring and corrective action per the groundwater protection programs referenced and most current approved Sampling and Analysis Plan and Groundwater Monitoring Program (see Attachment 1). Any required revisions to these documents are referenced in Condition II.E.21 of this permit.

The wells listed in Table 5 are hereby designated for "alternative sampling" due to their locations in relation to the permitted units (i.e., the wells are located near the perimeter for vertical compliance or near an area of high concentration). Accordingly, alternative sampling shall follow the procedures of LAC33:V.3319.G in order to determine whether additional hazardous constituents are present and, if so, at what concentration. These wells must be analyzed on a three year rotating schedule so that one well is sampled in the first year period, the second well is sampled in the second year period, and the third well sampled in the third year period, for constituents excluding organochlorine pesticides, organophosphorus pesticides, and herbicides, listed in LAC 33:V.3325, Table 4 (With approval from the Administrative Authority, wells with free phase material need not be sampled until such time as free phase material is no longer present in these wells). Table 4 constituents analyzed that are confirmed to be present must be added to the semi-annual monitoring program.

Table 5
Groundwater Monitoring
Alternative Sampling Wells

Well Number	Monitored Zone
DB-18, DB-29	Bentley Sand (lower)
DC-18	Williana Silt and Clay

HAZARDOUS AND SOLID WASTE AMENDMENTS

VII. SPECIAL CONDITIONS PURSUANT TO THE 1984 BAZARDOUS AND SOLID WASTE AMENDMENTS (HSWA) TO RCRA

VII.A. GLOSSARY OF TERMS

For the purpose of this Permit, terms used herein shall have the same meaning as those in LAC 33:V.Subpart I unless the context of use in this Permit clearly indicates otherwise. Where terms are not otherwise defined, the meaning otherwise associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

"Administrative Authority" means the Louisiana Department of Environmental Quality (LDEQ).

"Application" refers to the RCRA Part B Permit Application and subsequent amendments submitted by the Permittee for obtaining a Permit.

"Area of Concern" (AOC) means any discernable unit or area which, in the opinion of the Administrative Authority, may have received solid or hazardous waste or waste containing hazardous constituents at any time. The Administrative Authority may require investigation of the unit to determine if it is a Solid Waste Management Unit (SWMU). If shown to be a SWMU by the investigation, the AOC must be reported by the Permittee as a newly-identified SWMU. If the AOC is shown not to be a SWMU by the investigation, the Administrative Authority may determine that no further action is necessary and notify the Permittee in writing.

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"Area of Investigation" (AOI) is a zone contiguous to and including impacted media defined vertically and horizontally by the presence of one or more constituents in concentrations exceeding the limiting SS, MO-1 RS, or MO-2 RS (depending on the option being implemented).

"Beneficial Resource" describes natural resources that are useful to human and ecological receptors. The state may establish statutes or regulations that identify certain environmental components, such as specific ground water or surface water sources, as a "Special Beneficial Resource," or "Designated Beneficial Resource." The beneficial resources then may be entitled to greater protection from contamination.

"Constituents of Concern" (COC) means the COPC's that pose a significant risk.

"Constituents of Potential Concern" (COPC) means chemicals from hazardous waste and hazardous waste constituents that are potentially site related and have data of quality for use in the Screen or a site-specific risk assessment. The facility should compile a list of COPC's for each release site based on existing sampling data, waste analysis reports, etc.

"Conceptual Site Model" (CSM) is part of the Data Quality Objective (DQO) process that presents a three-dimensional picture of site conditions at a discrete point in time that conveys what is known about the facility, releases, release mechanisms, contaminant fate and transport, exposure pathways, potential receptors, and risks. The information for the CSM is documented into six profiles. The CSM evolves as data gaps in the profiles become more complete, and will be refined based upon results of site characterization data. The final CSM is documented in the Risk Management Plan.

- "CWA" means Clean Water Act.
- "Corrective Action" is an activity conducted to protect human health and the environment.
- "DNAPL" a dense liquid not dissolved in water, commonly referred to as "free product."
- "Department" means the Louisiana Department of Environmental Quality (LDEQ).
- "EPA" means the United States Environmental Protection Agency.
- "HSWA" means the 1984 Hazardous and Solid Waste Amendments to RCRA.
- "Hazardous Constituent" means any constituent identified in LAC 33:V.Chapter 31. Table 1, or any constituent identified in LAC 33:V.3325. Table 4.
- "LDEQ" means the Louisiana Department of Environmental Quality.
- "LNAPL" a light liquid not dissolved in water, commonly referred to as "free product."
- "Operating Record" means written or electronic records of all maintenance, monitoring, inspection, calibration, or performance testing—or other data as may be required—to demonstrate compliance with this Permit, document noncompliance with this Permit, or document actions taken to remedy noncompliance with this Permit. A minimum list of documents that must be included in the operating record are identified at LAC 33:V.1529.B.
- "Permittee" means Basic Chemicals Company, 8318 Ashland Road, Geismar, Louisiana 70734.
- "RCRA Permit" means the full-permit, with RCRA and HSWA portions.
- "RFA" means RCRA Facility Assessment.
- "RFI" means RCRA Facility Investigation.
- "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).
- "SARA" means Superfund Amendments and Reauthorization Action of 1986.
- "Solid Waste Management Unit" (SWMU) means any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

"Stabilization" is an action taken for the purpose of controlling or abating threats to human health or the environment from releases or preventing or minimizing the further spread of contaminants while long-term remedies are pursued.

If, subsequent to the issuance of this Permit, regulations are promulgated which redefine any of the above terms, the Administrative Authority may, at its discretion, apply the new definition to the "Glossary of Terms".

All regulating citations are defined as being the regulations in effect on the date of issuance of this permit. New and/or amended regulations are not included as Permit requirements until permit modification procedures as specified in Section II.C. of the permit and LAC 33:V.321 are completed.

VII.A. STANDARD CONDITIONS

VII.B.1. Waste Minimization

Annually, by March 1, for the previous year ending December 31, the Permittee shall enter into the operating record as required by LAC 33:V.1529.B.19, a statement certified according to LAC 33:V.513.A specifying that the Permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal that is a practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to the Administrative Authority. The following are suggested criteria for the program:

- VII.B.1.a. Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;
- VII.B.1.b. Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;
- VII.B.1.c. An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;
- VII.B.1.d. Factors that have prevented implementation of source reduction and/or recycling;
- VII.B.1.e. Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);
- VII.B.1.f. An investigation of additional waste minimization efforts which could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;
- VII.B.1.g. A flow chart or matrix detailing all hazardous wastes it produces by quantity, type, and building/area;

- VII.B.1.h. A demonstration of the need to use those processes which produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste.
- VII.B.1.i. A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed.
- VII.B.1.j. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years.

VII.B.2. Dust Suppression

Pursuant to LAC 33:V.4139.B.4, and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

VII.B.3. Permit Modification

The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts at any time, may be cause for termination or modification of this Permit in accordance with LAC 33:323.B.2 and 3.

VII.B.4. <u>Suspension, Modification, or Revocation and Reissuance, and Termination of Permit</u>

This Permit may be modified, revoked and reissued, or terminated for cause as specified in LAC 33:V.323. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

- VII.B.4.a. If the Administrative Authority tentatively decides to modify or revoke and reissue a permit under LAC 33:V.321.C.3 or 323, a draft permit shall be prepared incorporating the proposed changes. The Administrative Authority may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.
- VII.B.4.b. The Permittee may initiate permit modification proceedings under LAC 33:V.321.C. All applicable requirements and procedures as specified in LAC 33:V.33.321.C shall be followed.

VII.B.4.c. Modifications of this Permit do not constitute a reissuance of the Permit.

VII.B.5. Permit Review

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as in accordance with LAC 33:V.321. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term.

VII.B.6. Compliance with Permit

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

- VII.B.6.a. Become effective by statute;
- VII.B.6.b. Are promulgated under LAC 33:V.Chapter 22 restricting the placement of hazardous wastes in or on the land; or
- VII.B.6.c. Are promulgated under LAC 33:V.Chapters 23, 25 and 29 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of LAC 33:V.321.

VII.B.7. Specific Waste Ban

- VII.B.7.a. The Permittee shall not place in any land disposal unit the wastes specified in LAC 33:V.Chapter 22 after the effective date of the prohibition unless the administrative authority has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.
- VII.B.7.b. The Permittee may store wastes restricted under LAC 33:V. Chapter 22 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of LAC 33:V.2205.A.2 including, but not limited to, clearly marking each tank or container.

Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit.

Any noncompliance with approved plans and schedules shall be termed noncompliant with this Permit. Written requests for extensions of due dates for submittals may be granted by the Administrative Authority in accordance with LAC 33:1.1505.E.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority may modify this Permit according to procedures in LAC 33:V.321.

VII.B.10. Data Retention

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

VII.B.11. Management of Wastes

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. Until such time as final regulations are adopted, proposed regulations under Subpart S - Corrective Action for Solid Waste Management Units - 40 CFR 264.550, 264.551 and 264.552, Federal Register, Friday, July 27, 1990, pp 30798-30884, or updated versions thereof acceptable to the administrative authority, shall be applicable as guidance for managing these wastes. Approval of units for managing wastes and conditions for operating the units, if approved, shall be granted through the permitting process.

VII.C. SPECIFIC CONDITION - CLOSURE

Pursuant to Section 3005(j)(1) of the Hazardous and Solid Waste Amendments of 1984, the Permittee shall close any closing units in accordance with the following provisions:

- VII.C.1. Other than consolidation of any wastes from the sites in conformance with LAC 33:V.Chapter 22, Land Disposal Restrictions, the Permittee shall not place waste prohibited by LAC 33:V.Chapter 22 into any closing units;
- VII.C.2. The Permittee shall perform unit closures in accordance with the Closure Plan(s) as approved at the time of closure, and which meet(s) all relevant State and Federal closure requirements at the time of closure; and

- VII.B.7.c. The Permittee is required to comply with all applicable requirements of LAC 33:V.2245 as amended. Changes to the waste analysis plan will be considered permit modifications at the request of the Permittee, pursuant to LAC 33:V.321.C.
- VII.B.7.d. The Permittee shall perform a waste analysis at least annually or when a process changes, to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record.
- VII.B.7.e. The Permittee must comply with requirements restricting placement of hazardous wastes in or on land which become effective by statute or promulgated under LAC 33:V.Chapter 22, regardless of requirements in the Permit. Failure to comply with the regulations may subject the Permittee to enforcement action under Section 3008 of RCRA and the Louisiana Environmental Quality Act, La. R.S. 30:2001 et.seq.

VII.B.8. Information Submittal

Failure to comply with any condition of the Permit, including information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (LAC 33:V.323.B.3).

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required in this Permit are signed and certified in accordance with LAC 33:V.Chapter 5, Subchapter B. A summary of the planned reporting requirements pursuant to this Permit is found in Attachment 1. Five (5) copies each of these plans, reports, notifications or other submissions and one (1) electronic copy (3.5" IBM compatible disk or CD-ROM) of all portions thereof which are in word processing format shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

Louisiana Department of Environmental Quality Office of Environmental Services 602 N. Fifth Street Baton Rouge, LA 70802

VII.B.9. Plans and Schedules Incorporated Into Permit

All plans and schedules required by this Permit are, upon approval by the Administrative Authority, incorporated into this Permit by reference and become an enforceable part of this Permit. Since required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action under

VII.C.3. The Permittee shall notify the Administrative Authority in writing at least 60 days prior to commencement of closure.

VII.D. SPECIFIC CONDITIONS-PRELIMINARY REPORT

Within ninety (90) days of notification of a newly discovered release of a hazardous waste or hazardous constituents, the Permittee shall submit to the Administrative Authority a Preliminary Report describing the current conditions at the facility. The Preliminary Report shall cover background information and current conditions at the facility for the items listed below.

VII.D.1. Facility Background

The Permittee report shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage or disposal of solid and hazardous waste. The Permittee's report shall include:

- VII.D.1.a Map(s) depicting the following information. All maps depicting the following information shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current and future work performed at the site;
 - VII.D.1.a.i General geographic location;
 - VII.D.1.a.ii Property lines with the owners of all adjacent property clearly indicated;
 - VII.D.1.a.iii Topography with a contour interval of five (5) or ten (10) feet, a scale of 1 inch: 100 feet, waterways, all wetlands, floodplains, water features, drainage patterns;
 - VII.D.1.a.iv All solid waste management units;
 - VII.D.1.a.v All known past solid or hazardous waste treatment, storage or disposal areas regardless of whether they were active on November 19,1980;
 - VII.D.1.a.vi Surrounding land uses (e.g., residential, commercial, agricultural, and recreational); and
 - VII.D.1.a.vii The location of all production and groundwater monitoring wells with the well clearly labeled and

ground and top of casing elevations included (ground and top of casing elevations may be included as an attachment).

- VII.D.1.b A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage and disposal activities at the facility;
- VII.D.1.c Approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

VII.D.2 Nature and Extent of Contamination

The Permittee shall include in the Preliminary Report the existing information on the nature and extent of contamination.

- VII.D.2.a The Permittee's report shall summarize all possible source areas of contamination. This, at a minimum, should include all solid waste management units. For each area, the Permittee shall identify the following:
 - VII.D.2.a.i Location of unit/area (which shall be depicted on a facility map);
 - VII.D.2.a.ii Quantities of solid and hazardous wastes;
 - VII.D.2.a.iii Hazardous waste or hazardous constituents, to the extent known; and
 - VII.D.2.a.iv Identification of areas where additional information is necessary.
- VII.D.2.b The Permittee shall prepare an assessment and description of the existing degree and extent of contamination. This should include:
 - VII.D.2.b.i Available monitoring data and qualitative information on locations and levels of contamination at the facility;

- VII.D.2.b.ii All potential migration pathways including information on geology, pedology, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality; and
- VII.D.2.b.iii The potential impact(s) on human health and the environment, including demography, groundwater and surface water use, and land use.

V.D.3. PRELIMINARY REPORT REVIEW AND SITE ASSESSMENT

Within 120 days, the administrative authority shall review the preliminary report and issue a site assessment report detailing Solid Waste Management Units recognized by the administrative authority. Further investigations and corrective measures shall be accomplished according to the schedule outlined in Table 1, RFI and CMS Summary.

VII.E. SPECIFIC CONDITION-INFORMATION REPOSITORY [RESERVED]

VII.F. BIF RULE [RESERVED]

VII.G. AA-BB AIR REGULATIONS

The Permittee must comply with the requirements of LAC 33:V. Chapter 17, as applicable. If the following information was not included in the Part B Permit Application pursuant to LAC 33:V. Chapter 17. Subchapter A and Subchapter B, within ninety (90) days of the effective date of this Permit, the Permittee shall submit to the Administrative Authority a report covering those units subject to LAC 33:V. Chapter 17 which must contain, at minimum, the following information:

- VII.G.1. An equipment list which includes all the information required under LAC 33:V.1743.B.1 for equipment that contains or contacts hazardous wastes with organic concentrations of at least ten (10) percent by weight, and a list of all process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous waste with organic concentrations of at least ten (10) percent by weight.
- VII.G.2. For the process vents listed above, the amount of vent emissions in lb/hr or kg/hr, and in lb/yr or kg/yr.
- VII.G.3. If the emissions in Section VII.G.2 exceed the emission limits cited in LAC 33:V.1707.A.1, the report must detail the manner in which compliance will be obtained, i.e., by the reduction of total organic emissions to the limits in LAC 33:V.1707.A.1 or reduction by means of a control device per LAC 33:V.1707.A.2.

- VII.G.4. If a closed-vent system and control device is installed to comply with the requirements in LAC 33:V.1707.B, provide the following information:
 - VII.G.4.a. An implementation schedule that includes dates by which the closedvent system and control device will be installed and in operation per LAC 33:V.1709.A.2.
 - VII.G.4.b. The type of control device under LAC 33:V.1709 to be installed (e.g., vapor recovery, flare, etc.).
- VII.G.5. If the Permittee feels any of the requirements of this Permit Condition VII.G, or of LAC 33:V.Chapter 17 are not applicable to this facility, the Permittee must provide justification for this decision as part of the report.

VII.H. CORRECTIVE ACTION

VII.H.1. Corrective Action for Releases: Section 3004(u) of RCRA, as amended by HSWA, and LAC 33:V.3322 require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any SWMU at the facility, regardless of when the waste was placed in the unit.

VII.H.2. Action Levels

- VII.H.2.a. Applicability The concept of action levels, described in the RFI guidance document referenced in Permit Condition VII.M.1.c.1 shall be used by the Permittee to determine the need for further corrective actions under this Permit. As specified in Permit Condition VII.Q, the Permittee shall conduct a CMS whenever concentrations of hazardous constituents in groundwater, surface water, soils, or air exceed action levels for any environmental medium; or when the Administrative Authority determines that concentrations of contaminants, even if below action levels, present a threat to human health or the environment. The concept of action levels is not the same as cleanup levels, although in some cases a final cleanup level may be set to equal the action level.
- VII.H.2.b. <u>Calculation</u> The Permittee shall adhere to RFI guidance in the calculation of action levels for all the environmental media. These action levels shall be updated as new toxicity data and promulgated standards (e.g., maximum contaminant levels) are derived. The most recent reference doses, reference concentrations, and cancer slope factors (e.g., data found in EPA's Integrated Risk Information System) shall be utilized in the calculation of action levels. The toxicity data available at the time that a determination for further action is made (i.e., requirement to conduct a CMS), including interim measures,

shall be utilized in the calculations. If used as final cleanup levels, action levels shall be calculated using the most recent toxicity data and promulgated standards existing at the time of implementation of corrective measures.

VII.H.3. Risk Assessment

- VII.H.3.a. The Permittee shall conduct human health and ecological risk assessments as necessary for the protection of human health and the environment. These risk assessments shall be used to establish baseline risk at a site and/or to derive final or interim cleanup levels at the site. These risk assessments, if necessary, shall be performed concurrently with the corrective action activities specified in this Permit, including any activities undertaken during implementation of the activities proposed in the RFI Workplan. These risk assessments may also be performed concurrently with the RFI Final Report and Summary and the CMS Phase of this permit, as specified in Permit Condition VII.O and VII.Q, R, and S respectively, but only after the Permittee has determined the full vertical and horizontal extent of contamination at each respective SWMU.
- VII.H.3.b. The Permittee shall utilize, but not be limited to, the following EPA documents and publications: "Compendium of ORD and OSWER Documents Relevant to RCRA Corrective Action" (EPA530-B-92-003, April 1992); "Ecological Assessments of Hazardous Waste Sites, A Field and Laboratory Reference Document" (EPA/600/3-89/013, March 1989); "ECO Update, Ecological Assessment of Superfund Sites: An Overview" (Publication 9345.0-05I, Vol. 1, No. 2, December 1991); and "ECO Update, Developing A Work Scope for Ecological Assessments" (Publication 9345.0-05I, Vol. 1, No. 4, May 1992); including any subsequent revisions.
- VII.H.3.c. <u>Baseline Risk Assessments</u> Baseline risk assessments, if required, shall be used to evaluate the risks posed by contaminants at a site prior to the beginning of any corrective actions. This type of risk assessment shall be used in certain circumstances (specified in Permit Condition VII.H.3.) instead of action levels (described in Permit Condition VII.H.2) to determine the need for remedial action.
- VII.H.3.d. Although the action level concept shall serve as a trigger for a CMS (as specified in Permit Condition VII.O) certain exceptions will apply, but not be limited to the following circumstances. In cases where the applicable action levels are not protective enough of sensitive environmental systems; such as wetlands, estuaries, and habitats of endangered or threatened species, the Permittee shall

conduct a baseline environmental risk assessment. In cases where there are confirmed releases to groundwater, surface water, air, or sediments, a baseline risk assessment shall be required to determine the need for stabilization/interim measures, especially where health advisories have been issued by local/state governments. In addition, action levels may be inappropriate at a site where there are multiple contaminants or where leaching from contaminated soils into groundwater poses greater risk than ingestion of the soils.

- VII.H.3.e. If an action level has been exceeded, for any of the environmental media of concern, at any time during the corrective action activities required by this Permit, the Permittee may be required to conduct a risk assessment to determine risks to human health and the environment and the necessity to perform interim measures, as specified in Permit Condition VII.L. Risk assessments to determine final cleanup levels or to be used in justifying no further action determinations shall be conducted only after the Permittee has determined the full vertical and horizontal extent of contamination from each SWMU or groups of SWMUs specified in this permit.
- VII.H.3.f. Risk Assessments for Deriving Cleanup Levels Risk assessments, if required, may also be used as a starting point for cleanup goals, in addition to the final cleanup level. Risk assessments may be required as specified in Permit Condition VII.H.3. In addition, where cleanup levels fail to incorporate significant routes of exposure at a particular site, or where remedies cannot meet the 10⁻⁴ to 10⁻⁶ risk range for carcinogens or meet action levels if chosen as final cleanup levels, a risk assessment may also be required.

The Administrative Authority intends to review risk assessments as part of the CMS Phase of the corrective action activities specified in this Permit in deriving final cleanup goals, but only after the Permittee has determined the full vertical and horizontal extent of contamination from each SWMU or groups of SWMUs specified in this permit.

VII.H.3.g. Use of Risk Assessments in Justifying No Further Action - The Permittee may submit a risk assessment(s) justifying no further action at a SWMU(s) concurrently with submittal of the RFI Final Report and Summary specified in Permit Condition VII.O, only if the Permittee has determined the full vertical and horizontal extent of contamination from each SWMU or group of SWMUs specified in this Permit.

- VII.H.4. Corrective Action for Releases Beyond Facility Boundary: Section 3004(v) of RCRA as amended by HSWA, and State regulations promulgated as LAC 33:V.3222.C require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.
- VII.H.5. Financial Responsibility: Assurances of financial responsibility for corrective action shall be provided as specified in the Permit following major modification for remedy selection.
- VII.H.6. Summary of Corrective Action Activities: A summary of the corrective action activities associated with the facility is provided in Appendix One of Section VII of this permit. AOC's and SWMU's that are currently being managed or proposed for management under a prescribed corrective action program (i.e. groundwater order, corrective action order, CERCLA) are identified in Section VII, Table 3 of this permit.

VII.I. REPORTING REQUIREMENTS

- VII.1.1. The Permittee shall submit, in accordance with Permit Condition VII.B.7, signed quarterly progress reports of all activities (i.e., RFI, CMS) conducted pursuant to the provisions of this Permit beginning upon notification by the Administrative Authority. These reports shall contain:
 - VII.1.1.a. A description of the work completed and an estimate of the percentage of work completed;
 - VII.1.b. Summaries of all findings, including summaries of laboratory data;
 - VII.1.1.c. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems,
 - VII.I.1.d. Projected work for the next reporting period;
 - VII.I.e. Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;
 - VII.I.f. Changes in key project personnel during the reporting period; and
 - VII.1.1.g. Summaries of all changes made in implementation during the reporting period.

- VII.I.2. Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Administrative Authority upon request.
- VII.I.3. In addition to the written reports as required in Permit Condition VII.I.1. and 1.2 above, at the request of the Administrative Authority, the Permittee shall provide status review through briefings with the Administrative Authority.

VII.J. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs

- VII.J.1. The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMU(s) and potential AOCs (i.e., a unit or area not specifically identified during the RFA), discovered in the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The Permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:
 - VII.J.1.a. The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs);
 - VII.J.1.b. The type and function of the unit;
 - VII.J.1.c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);
 - VII.J.1.d. The period during which the unit was operated;
 - VII.J.1.e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and
 - VII.J.1.f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU or whether the AOC should be considered a SWMU.
- VII.J.2. Based on the results of this notification the Administrative Authority will designate the newly-identified AOC(s). Based on the results of this notification or investigation conducted according to Condition VII.J.1, the Administrative Authority will determine the need for further investigations or corrective measures

at any newly-identified SWMU(s) or AOC(s). If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. The plan for investigation of SWMU(s) or AOC(s) will be reviewed for approval

as part of the RFI Workplan or a new RFI Workplan under Permit Condition VII.M.3. The Permit will be modified according to LAC 33:V.321 to incorporate the investigation requirements for the newly-identified SWMU(s) and potential AOC(s) identified pursuant to Permit Condition VII.J.1.

VII.J.3. Newly-identified SWMU's and AOC's will be included in Section VII, Table 2 of this permit.

VII.K. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMU(s) AND AOC(s)

The Permittee shall notify the Administrative Authority in writing, no later than fifteen (15) calendar days after discovery, of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other means. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the RFA, completed RFI, or investigation of an AOC(s), the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification. The Administrative Authority may require further investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the RFI Workplan or a new RFI Workplan under Permit Condition VII.M.3. The Permit will be modified according to Permit Condition VII.B.3 to incorporate the investigation, if required.

VII.L. INTERIM MEASURES

VII.L.1. If during the course of any activity initiated under this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. The Administrative Authority shall notify the Permittee in writing of the requirement to perform interim measures. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit.

- VII.L.2. The Permittee may propose interim measures at any time. The proposal shall include a written plan and a schedule for implementation. Depending upon the nature of the interim measure, a permit modification may not be required.
- VII.L.3. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:
 - VII.L.3.a. Time required to develop and implement a final remedy;
 - VII.L.3.b. Actual and potential exposure to human and environmental receptors;
 - VII.L.3.c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;
 - VII.L.3.d. The potential for further degradation of the medium in the absence of interim measures;
 - VII.L.3.e. Presence of hazardous wastes in containers that may pose a threat of release;
 - VII.L.3.f. Presence and concentration of hazardous waste including hazardous constituents in soil that have the potential to migrate to groundwater or surface water;
 - VII.L.3.g. Weather conditions that may affect the current levels of contamination;
 - VII.L.3.h. Risks of fire, explosion, or accident; and
 - VII.L.3.i. Other situations that may pose threats to human health and the environment.

VII.M.RFI WORKPLAN

- VII.M.1. The RFI Workplan, if required for newly discovered releases as specified in Condition VII.K, shall be submitted to the Administrative Authority in accordance with VII.U.3 within 180 calendar days from the notification of the requirement to submit additional investigations for newly discovered releases. The RFI Workplan must address releases of hazardous waste or hazardous constituents to all media.
 - VII.M.1.a. The Workplan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the direction, rate, movement, and concentration of releases of hazardous waste or hazardous constituents from specific units or groups of units, and their actual or potential receptors. The RFI Workplan shall detail all proposed activities and

procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI. The Scope of Work for a RCRA Facility Investigation (RFI) is in Permit Condition VII.U.

- VII.M.1.b. The RFI Workplan shall describe sampling, data collection quality assurance, and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.
- VII.M.1.c. Development of the RFI Workplan and reporting of data shall be consistent with the following EPA guidance documents or the equivalent thereof:
 - VII.M.1.c.(1) RCRA Facility Investigation Guidance Document (EPA 530/SW-89-031, May 1989);
 - VII.M.1.c.(2) RCRA Ground-Water Monitoring: Draft Technical Guidance (EPA/530-R-93-001, November 1992);
 - VII.M.1.c.(3) RCRA Groundwater Monitoring Technical Enforcement Guidance Document (OSWER 9950.1 September 1986); and
 - VII.M.1.c.(4) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, November 1992, with revisions.
- VII.M.2. After the Permittee submits the Workplan, the Administrative Authority will either approve, disapprove, or modify the Workplan in writing.

If the Administrative Authority approves the Workplan, the Permittee shall begin implementation of the plan within two weeks (14 days) of receipt of approval, and implement it according to the schedule contained in the plan. All approved workplans become incorporated into this Permit as per Permit Condition VII.B.9.

In the event of disapproval (in whole or in part) of the Workplan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the plan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified Workplan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the grounds for the exception within 10 days of receipt of the disapproval.

VII.M.3. The Administrative Authority shall review for approval as part of the RFI Workplan or as a new workplan any plans developed pursuant to Permit Condition J addressing further investigations of newly-identified SWMUs or AOCs, or Permit Condition VII.K addressing new releases from previously-identified SWMUs or AOCs.

VII.N. RFI IMPLEMENTATION

No later than fourteen (14) calendar days after the Permittee has received written approval from the Administrative Authority for the RFI Workplan, the Permittee shall implement the RFI according to the schedules and in accordance with the approved RFI Workplan and the following:

- VII.N.1. The Permittee shall notify Administrative Authority at least 10 days prior to any field sampling, field-testing, or field monitoring activity required by this Permit to give agency personnel the opportunity to observe investigation procedures and/or split samples.
- VII.N.2. Deviations from the approved RFI Workplan which are necessary during implementation of the investigations must be approved by the Administrative Authority and fully documented and described in the progress reports and in the RFI Final Report.

VII.O. RFI REPORT AND SUMMARY

The regulated units requiring groundwater monitoring include the Drip Pad, and a series of closed unlined surface impoundments, Waste Management Units A, B, and C. Pursuant to LAC 33:V.3301.G, the Administrative Authority has determined that Alternative Monitoring Requirements will apply to Waste Management Units A, B, and the Drip Pad via corrective action.

International Paper prepared a RFI Preliminary Report dated August 1991 which described the site environmental conditions and the results of previous investigations. In September 1991, International Paper submitted the RFI Work Plan, which presented the scope of work for the investigation of the five SWMUs and Waste Management Units A, B, and C.

Since that time, the manufacturing operations at the Deridder facility have been terminated. An Interim Measures (IM) program for the Treating Area and Drip Pad was conducted, and Certification Report approved on 9/3/1999. The RFI Work Plan was revised and resubmitted in July 2000 to LDEQ to address the changes at the facility and to incorporate updated site assessment procedures and the requirements of the LDEQ Risk Evaluation Corrective Action Program (RECAP). The RFI Work Plan included investigation plans for SWMU E and SWMU F, an Amended Data Collection Quality Assurance Plan, and Data Management Plan. The facility is conducting ongoing Corrective Action activities for SWMUs 11, 12, 13, E and F.

VILP. DETERMINATION OF NO FURTHER ACTION

VII.P.1. Based on the results of the RFI and/or other relevant information, the Permittee may submit an application to the Administrative Authority for a Class III permit modification under LAC 33:V.321.C.3 to terminate the RFI/CMS process for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous waste including hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required in LAC 33:V.321.C.3.

If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and other information, including comments received during the sixty (60) day public comment period required for Class III permit modifications, the Administrative Authority determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

- VII.P.2. If necessary to protect human health or the environment, a determination of no further action shall not preclude the Administrative Authority from requiring continued or periodic monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.
- VII.P.3. A determination of no further action shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to Permit LAC 33:V.321.
- VII.P.4. The SWMU(s)/AOC(s) that have received no further action determinations from the Administrative Authority are identified in Section VII, Table 4 of this permit.

VII.Q. CMS PLAN

VII.Q.1. If the Administrative Authority has reason to believe that a SWMU has released concentrations of hazardous constituents, or if the Administrative Authority determines that contaminants present a threat to human health or the environment given action levels or site-specific exposure conditions, the Administrative Authority may require a CMS and shall notify the Permittee in writing. The notification may also specify remedial alternatives to be evaluated by the Permittee during the CMS.

VII.Q.2. The Permittee shall submit a CMS Plan to the Administrative Authority within ninety (90) calendar days from notification of the requirement to conduct a CMS. The Scope of Work for a CMS Plan is in Permit Condition VII.V.

The CMS Plan shall provide the following information:

- VII.Q.2.a. A description of the general approach to the investigation, and potential remedies;
- VII.Q.2.b. A definition of the overall objectives of the study;
- VII.Q.2.c. Specific plans for evaluating remedies to ensure compliance with remedy standards;
- VII.Q.2.d. Schedules for conducting the study; and
- VII.Q.2.e. The proposed format for the presentation of information.
- VII.Q.3. After the Permittee submits the CMS Plan, the Administrative Authority will either approve, disapprove, or modify the plan in writing. If the Administrative Authority approves the CMS Plan, the Permittee shall implement the plan per Permit Condition VII.R.

In the event of disapproval (in whole or in part) of the CMS Plan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the plan to correct these within the time frame specified in the notice of deficiency. The modified CMS Plan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to the disapproval, decision, or directive, the Permittee shall submit a written statement of the grounds for the exception.

VII.R. CMS IMPLEMENTATION

No later than fourteen (14) calendar days after the Permittee has received written approval from the Administrative Authority for the CMS Plan, the Permittee shall begin implementation of the Corrective Measures Study and execute the plan according to the schedules specified and in accordance with the approved CMS Plan. All approved plans become incorporated into this Permit as per Permit Condition VII.B.9.

VII.S. CMS FINAL REPORT AND SUMMARY

VII.S.1. Within sixty (60) calendar days after the completion of the CMS, the Permittee shall submit a CMS Final Report and Summary. The Summary shall summarize the Final Report. The CMS Final Report shall discuss the results of investigations of each remedy studied and of any bench-scale or pilot tests conducted. It must include an evaluation of each remedial alternative. The

CMS Final Report shall present all information gathered during the CMS, and must contain adequate information to support the remedy selection process. In the CMS Final Report, the Permittee shall propose a corrective action program that shall:

- VII.S.1.a. attain compliance with corrective action objectives for hazardous constituents in each medium, as established in Permit Condition VII.V;
- VII.S.1.b. control sources of releases;
- VII.S.1.c. meet acceptable waste management requirements; and
- VII.S.1.d. protect human health and the environment.
- VII.S.2. After the Permittee submits the CMS Final Report and Summary, the Administrative Authority will either approve or disapprove them in writing. Should the Permittee take exception to the disapproval, decision, or directive, the Permittee shall notify the Administrative Authority.

If the Administrative Authority approves the CMS Final Report and Summary, the Permittee shall mail the approved Summary to all individuals on the facility mailing list established pursuant to LAC 33:V.717.A.5, within fifteen (15) calendar days of receipt of approval.

If the Administrative Authority determines the CMS Final Report and Summary do not fully meet the objectives stated in Permit Condition VII.V, the Administrative Authority may disapprove the CMS Final Report and Summary. If the Administrative Authority disapproves the Report, the Administrative Authority shall notify the Permittee in writing of the Report's deficiencies and specify a due date for submittal of a revised Final Report and Summary. Once approved, the Summary shall be mailed to all individuals on the facility mailing list as specified above.

VII.S 3. Based on preliminary results and the CMS Final Report, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

VII.T. CORRECTIVE MEASURE (REMEDY) SELECTION AND IMPLEMENTATION

Within thirty (30) calendar days after approval of CMS Final Report and Summary, the Administrative Authority shall initiate modification of the Permit according to LAC 33: V.321, for corrective measure (remedy) selection, based on the approved CMS Final Report. The resultant modified permit will include schedules for remedy implementation.

VII.U. RFI SCOPE OF WORK

VII.U.1. Purpose

The purpose of the RFI is to determine the nature and extent of releases of hazardous wastes or hazardous constituents from solid waste management units. The required information shall include each item specified under Tasks 1-III. The Permittee shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RFI.

If the Permittee believes that certain requirements of the Scope of Work are not applicable, the specific requirements shall be identified and a detailed rationale for inapplicability shall be provided.

VII.U.2. Scope

The RFI consists of three tasks:

Task 1: RFI Workplan

- a. Introduction
- b. Environmental Setting
- c. Source Characterization
- d. Contamination Characterization
- e. Potential Receptor Identification
- f. Data Collection Quality Assurance Plan
- g. Data Management Plan
- h. Health and Safety Plan
- i. Community Relations Plan
- j. Project Management Plan

Task II: RCRA Facility Investigation

Task III: RFI Final Report and Summary

VII.U.3. Task I: RFI Workplan

The Permittee shall prepare a RFI Workplan as specified in Permit Condition VII.M and the following. The RFI Workplan shall provide for and address the following information needs:

VII.U.3.a. Introduction

VII.U.3.a.(1) Facility Description

The introduction shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage, or disposal of solid and hazardous waste. Information from existing reports and studies is acceptable, as long as the source of this information is documented, pertinent, and reflective of current conditions. This section shall include:

- VII.U.3.a.(1)(i) Map(s) depicting the information specified below. All maps shall be consistent with requirements set forth in LAC 33:V.517 and shall be of sufficient detail and accuracy to locate all current and future work performed at the site.
 - VII.U.3.a.(1)(i)(1) general geographic location;
 - VII.U.3.a.(1)(i)(2) property lines, with the owners of all adjacent property clearly indicated, and all land previously owned and/or used by the Permittee around the facility;
 - VII.U.3.a.(1)(i)(3) topography, waterways, wetlands, floodplains, water features, and drainage patterns;
 - VII.U.3.a.(1)(i)(4) all tanks, buildings, utilities, paved areas, rights-of-way, and other features;
 - VII.U.3.a.(1)(i)(5) all solid waste management units;
 - VII.U.3.a.(1)(i)(6) all known past solid or hazardous waste treatment, storage and disposal areas or units regardless of whether they were active on November 19, 1980;
 - VII.U.3.a.(1)(i)(7) surrounding land uses (residential, commercial, agricultural, recreational); and
 - VII.U.3.a.(1)(i)(8) the location of all production and groundwater monitoring wells. These wells shall be clearly labeled and ground

and top of casing elevations included (these elevations may be included as an attachment).

- VII.U.3.a.(1)(ii) A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage and disposal activities at the facility.
- VII.U.3.a.(1)(iii) A summary of approximate dates or periods of past waste releases, identification of the materials released, the amount released, the location released, and a description of the response actions conducted (local, state, or Federal response units, or private parties), including any inspection reports or technical reports generated as a result of the response.
- VII.U.3.a.(1)(iv) A reference to all environmental, geologic, and hydrogeologic studies performed by all parties, at or near the facility, with a short summary of the purpose, scope, and significant findings thereof.
- VII.U.3.a.(1)(v) A reference to all environmental permits, applied for and/or received, the purpose thereof, and a short summary of requirements.

VII.U.3.a.(2) Nature and Extent of Contamination

- VII.U.3.a.(2)(i) The Introduction shall summarize all possible source areas of contamination. This, at a minimum, should include all SWMUs listed in Table 2. For each area, the Permittee shall identify the following:
 - VII.U.3.a.(2)(i)(1) location of unit/area on a facility map;
 - VII.U.3.a.(2)(i)(2) quantities of solid, hazardous, and radiochemical wastes;
 - VII.U.3.a.(2)(i)(3) quantities of radiochemical and hazardous constituents, to the extent known; and
 - VII.U.3.a.(2)(i)(4) identification of areas where additional information is necessary.

- VII.U.3.a.(2)(ii) The Permittee shall prepare an assessment and description of the existing degree and extent of contamination. This should include:
 - VII.U.3.a.(2)(ii)(1) available monitoring data and qualitative information on locations and levels of contamination at the facility;
 - VII.U.3.a.(2)(ii)(2) all potential migration pathways including information on geology, pedology, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality; and
 - VII.U.3.a.(2)(ii)(3) the potential impact(s) on human health or the environment, including demography, groundwater and surface water use, and land use.

VII.U.3.a.(3) Implementation of Interim Measures

The Permittee shall document and report on all interim measures which have been or are being undertaken at the facility, including under state or Federal compliance orders, other than those specified in the Permit. The report shall include, as applicable:

- VII.U.3.a.(3)(i) Objectives of the interim measures: how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term solution;
- VII.U.3.a.(3)(ii) Schedules for design, construction and monitoring;
- VII.U.3.a.(3)(iii) Schedule for progress reports;
- VII.U.3.a.(3)(iv) Stabilization that has occurred at the site;
- VII.U.3.a.(3)(v) Proposed further investigation and/or action; and
- VII.U.3.a.(3)(vi) Justification for limiting the scope of the RFI.

VII.U.3.b. Environmental Setting

The Workplan shall provide for collection of information to supplement and verify existing information on the environmental setting at the facility. The Workplan shall provide for characterization of the following:

VII.U.3.b.(1) Hydrogeology

The Workplan shall describe in detail a program to evaluate hydrogeologic conditions at the facility. This program shall provide for least the following information needs:

- VII.U.3.b.(1)(i) A description of the regional, local, facility-wide, and SWMU-specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility.
- VII.U.3.b.(1)(ii) An analysis of any topographic features including surface water bodies that might influence the groundwater flow system.
- VII.U.3.b.(1)(iii) A representative and accurate classification and description of the hydrogeologic units which may be part of migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units) based on field data, tests (e.g., gamma and neutron logging of existing and new wells, piezometers and borings), and cores.
- VII.U.3.b.(1)(iv) The extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of migration pathways based on field studies and cores, structural geology, and hydrogeologic cross sections, including:
 - VII.U.3.b.(1)(iv)(1) unconsolidated sand and gravel deposits;
 - VII.U.3.b.(1)(iv)(2) zones of fracturing or channeling in consolidated or unconsolidated deposits; and
 - VII.U.3.b.(1)(iv)(3) zones of high permeability or low permeability that might direct and restrict the flow of contaminants.

- VII.U.3.b.(1)(v) A description of representative water level or fluid pressure based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source. Information needs include: potentiometric surface maps; hydrologic cross sections showing vertical gradients; vertical and horizontal components of flow; temporal changes in hydraulic gradients; and flow nets.
- VII.U.3.b.(1)(vi) A description of man-made influences that may affect site hydrogeology such as active and inactive local water-supply and production wells, pipelines, french drains, and ditches.

V∏.U.3.b.(2) Soils

The Permittee shall describe in detail a program designed to characterize soil and rock units above the water table. Such characterization shall include, but is not limited to, the following information: surface soil distribution; soil profile, including American Society for Testing and Materials (ASTM) and Unified Soil Classification System (USCS) classifications of soils; transects of soil stratigraphy; saturated hydraulic conductivity; porosity; cation exchange capacity (CEC); soil pH; particle size distribution; depth to water table; moisture content; effect of stratification on unsaturated flow; infiltration; evapotranspiration; residual concentration of contaminants in soil; total natural organic carbon content; and mineral and metal content.

VII.U.3.c. Source Characterization

The Permittee shall describe in detail a program designed to completely characterize the wastes and the areas where wastes have been placed, including: type, quantity, physical form, composition, disposition (containment and nature of wastes), and the facility characteristics affecting releases (e.g., facility security, engineered barriers). This shall include quantification of the following specific characteristics, at each source area:

VII.U.3.c.(1) Unit/disposal area characteristics, including but not limited to: location of unit/disposal area; type of unit/disposal area; design features; operating practices (past and present); period of operation; age of unit/disposal area; general physical conditions; and method used to close the unit/disposal area;

VII.U.3.c.(2) Waste characteristics, including but not limited to: type of waste placed in unit (hazardous classification, quantity, chemical composition); physical and chemical characteristics (physical form, physical description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

VII.U.3.d. Contamination Characteristics

The Permittee shall describe in detail a program to collect analytical data on groundwater, soils, surface water, sediment, and subsurface gas contamination when necessary to characterize contamination from a SWMU. The data shall be sufficient to define the extent, origin, direction, and rate of movement of contaminant plumes. Data required shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individual(s) performing the sampling and analysis. All media (groundwater, surface water and sediments, soil, air, and gas) unless otherwise specified in Table 2, must be investigated. If the Permittee believes certain media could not be affected by a release from a specific unit, a detailed justification for not investigating those media must be provided. The Permittee shall address the following types of contamination at the facility as appropriate:

VII.U.3.d.(1) Groundwater Contamination

The Workplan shall describe in detail a program of groundwater investigation to characterize any groundwater plumes of contamination at the facility that are not subject to corrective action requirements of LAC 33:V.3321. The program shall at a minimum provide for the following information needs:

- VII.U.3.d.(1)(i) a description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility;
- VII.U.3.d.(1)(ii) the horizontal and vertical direction of contamination movement;
- VII.U.3.d.(1)(iii) the velocity of contaminant movement;

- VII.U.3.d.(1)(iv) the horizontal and vertical concentrations of any LAC 33:V.3325. Table 4 constituents [40 CFR 264 Appendix IX];
- VII.U.3.d.(1)(v) an evaluation of factors influencing the plume movement; and

VII.U.3.d.(1)(vi) an extrapolation of future contaminant movement. VII.U.3.d.(2) Soil Contamination

The Permittee shall describe in detail a program to characterize contamination of soil and rock units above the water table in the vicinity of the contaminant release. The program shall provide for the following information needs:

- VII.U.3.d.(2)(i) a description of the vertical and horizontal extent of contamination;
- VII.U.3.d.(2)(ii) a description of contaminant and soil chemical properties within the contaminant source area. This includes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, natural total organic carbon content, and other factors that might affect contaminant migration and transformation.
- VII.U.3.d.(2)(iii) plume migration and transformation; specific contaminant concentrations; the velocity and direction of contaminant movement; and an extrapolation to future contaminant movement.
- VII.U.3.d.(3) Surface Water and Sediment Contamination

The Permittee shall describe in detail a program to characterize contamination in surface water bodies and sediment resulting from contaminant releases at the facility. The investigation shall at minimum include the following:

VII.U.3.d.(3)(i) a description of the surface water body including location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies, drainage patterns, and evapotranspiration rates;

- VII.U.3.d.(3)(ii) a description of sediment characteristics including depositional area, thickness, mineralogy, grain size, density, ion exchange capacity, and total natural organic carbon content;
- VII.U.3.d.(3)(iii) maps for all areas included in surface water and sediment investigations which meet requirements in LAC 33:V.517 and which are sufficiently detailed and accurate to depict all the information required;
- VII.U.3.d.(3)(iv) a description of the horizontal and vertical extent of any immiscible or dissolved plumes originating from the facility, and the extent of contamination in the underlying sediments;
- VII.U.3.d.(3)(v) the horizontal and vertical direction and velocity of contaminant movement;
- VII.U.3.d.(3)(vi) an evaluation of the physical, biological, chemical, and radiochemical factors influencing contaminant movement;
- VII.U.3.d.(3)(vii) an extrapolation to future contaminant movement;
- VII.U.3.d.(3)(viii) a description of the chemistry of the contaminated surface waters and sediments. This includes pH, temperature, total dissolved solids, total suspended solids, biochemical oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total organic carbon, and specific contaminant concentrations.

VII.U.3.d.(4) Air Contamination

The Permittee shall describe in detail a program to characterize particulate and gaseous contaminants released into the atmosphere. This investigation shall provide the following information: a description of the horizontal and vertical direction and velocity of contaminant movement; the rate and amount of the release; and the chemical, radiochemical, and physical composition of the contaminants released, including horizontal and vertical concentration profiles.

VII.U.3.d.(5) Subsurface Gas

The Permittee shall describe in detail a program to characterize the nature, rate and extent of releases of reactive gases from the units. Such a program shall include, but is not limited to: provisions for monitoring subsurface gases released from the unit, and an assessment of the potential for threat to human health and/or the environment.

VII.U.3.e. Potential Receptors

The Permittee shall describe in detail a program to collect data to describe human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical and radiochemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be required. The following characteristics shall be identified:

- VII.U.3.e.(1) Local uses and possible future uses of groundwater, including:
 - VII.U.3.e.(1)(i) type of use (i.e., potable, domestic, agricultural, residential, industrial, municipal)
 - VII.U.3.e.(1)(ii) location of all groundwater wells, names of owners or tenants at those locations, USGS/DODT well designations, and current use of those wells within a 1 mile radius of facility.
- VII.U.3.e.(2) Local uses and possible future uses of surface waters within a 1.5 mile radius of the facility, including domestic and municipal, recreational, agricultural, industrial, and environmental.
- VII.U.3.e.(3) Human use of or access to the facility and adjacent lands, including but not limited to recreation, hunting, residential, commercial, and industrial.
- VII.U.3.e.(4) A demographic profile of people who use or have access to the facility and adjacent land, including, but not limited to age, gender, and sensitive subgroups.
- VII.U.3.e.(5) A description of the local ecology, including biota in surface water bodies on, adjacent to, or affected by the facility, and a description of any endangered or threatened species near the facility.

VII.U.3.f. Data Collection Quality Assurance Plan

The Permittee shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed at the facility during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

- VII.U.3.f.(1) The strategy section of the Data Collection Quality Assurance Plan shall include but not be limited to the following:
 - VII.U.3.f.(1)(i) description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses;
 - VII.U.3.f.(1)(ii) description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data; and
 - VII.U.3.f.(1)(iii) schedule and information to be provided in quality assurance reports, including at least:
 - VII.U.3.f.(1)(iii)(1) periodic assessment of measurement data accuracy, precision, and completeness;
 - VII.U.3.f.(1)(iii)(2) results of performance audits;
 - VII.U.3.f.(1)(iii)(3) results of systems audits; and
 - VII.U.3.f.(1)(iii)(4) significant quality assurance problems and resolutions.
- VII.U.3.f.(2) The Sampling and Field Measurements Section of the Data Collection Quality Assurance Plan shall at least discuss:
 - VII.U.3.f.(2)(i) selecting appropriate sampling and field measurements locations, depths, etc.;
 - VII.U.3.f.(2)(ii) providing a statistically sufficient number of sampling and field measurement sites;
 - VII.U.3.f.(2)(iii) determining conditions under which sampling or field measurements shall be conducted;

- VII.U.3.f.(2)(iv) determining which parameters are to be measured and where;
- VII.U.3.f.(2)(v) selecting the frequency of sampling and length of sampling period;
- VII.U.3.f.(2)(vi) selecting the types of sample (e.g., composites vs. grabs) and number of samples to be collected;
- VII.U.3.f.(2)(vii) delineating procedures designed to prevent contamination of sampling or field measurements equipment and cross contamination between sampling points;
- VII.U.3.f(2)(viii) documenting field sampling operations and procedures;
- VII.U.3.f.(2)(ix) selecting appropriate sample containers,
- VII.U.3.f.(2)(x) preserving samples;
- VII.U.3.f.(2)(xi) controlling chain-of-custody; and
- VII.U.3.f.(2)(xii) disposing of all contaminated materials generated by activities in a manner compliant with all state and Federal regulations.
- VII.U.3.f.(3) The Sample Analysis shall include:
 - VII.U.3.f.(3)(i) chain-of-custody procedures;
 - VII.U.3.f.(3)(ii) sample storage procedures and holding times;
 - VII.U.3.f.(3)(iii) sample preparation methods;
 - VII.U.3.f.(3)(iv) analytical procedures;
 - VII.U.3.f.(3)(v) calibration procedures and frequency;
 - VII.U.3.f.(3)(vi) data reduction, validation and reporting; and
 - VII.U.3.f.(3)(vii) frequency of internal quality control checks and laboratory performance audits.

VII.U.3.g. Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures (data record), project file requirements, and project-related progress reporting procedures and documents.

- VII.U.3.g.(1) The data record shall include at least the following for all sample and field measurements: unique measurement code; measurement location; measurement type; laboratory ID number; property or component analyzed; and results of analysis.
- VII.U.3.g.(2) The Data Management Plan shall provide the format to be used to present the data and conclusions of the investigation, etc.
 - VII.U.3.g.(2)(i) The following shall be presented in tables: raw data; data sorted by significant features such as location, media, constituent; data reduction for statistical analysis; and summary data.
 - VII.U.3.g.(2)(ii) The following shall be presented in graphical formats (e.g., bar graphs, line graphs, plan maps, isopleth plots, cross-sections, three-dimensional displays, etc.): sampling location and grid; levels of contamination at each sampling location; geographical extent of contamination; and changes in concentration relative to source, time, depth, and other parameters.

VII.U.3.h. Health and Safety Plan

- VII.U.3.h.(1) The Permittee shall prepare a facility Health and Safety Plan, which shall include:
 - VII.U.3.h.(1)(i) a description of the facility including availability of resources such as roads, water supply, electricity and telephone service;
 - VII.U.3.h.(1)(ii) a description of the known hazards and evaluation of the risks associated with each activity conducted, including but not limited to on and off-site exposure to contaminants during implementation of interim measures;

- VII.U.3.h.(1)(iii) a list of key personnel and alternatives responsible for site safety, response operations, and for protection of public health;
- VII.U.3.h.(1)(iv) a delineation of the work area;
- VII.U.3.h.(1)(v) a description of levels of protection to be worn by personnel in the work area;
- VII.U.3.h.(1)(vi) procedures established to control site access;
- VII.U.3.h.(1)(vii)decontamination procedures for personnel and equipment;
- VII.U.3.h.(1)(viii)site emergency procedures;
- VII.U.3.h.(1)(ix) emergency medical care procedures for injuries and toxicological problems;
- VII.U.3.h.(1)(x) requirements for an environmental field monitoring program;
- VII.U.3.h.(1)(xi) routine and special training requirements for responders; and
- VII.U.3.h.(1)(xii)procedures for protecting workers from weather-related problems.
- VII.U.3.h.(2) The Facility Health and Safety Plan shall be consistent with:
 - VII.U.3.h.(2)(i) NIOSH Occupation Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985),
 - VII.U.3.h.(2)(ii) EPA Order 1440.1 Respiratory Protection;
 - VII.U.3.h.(2)(iii) EPA Order 1440.3 Health and Safety Requirements for Employees engaged in Field Activities;
 - VII.U.3.h.(2)(iv) approved Facility Contingency Plan;
 - VII.U.3.h.(2)(v) EPA Operating Safety Guide (1984);
 - VII.U.3.h.(2)(vi) OSHA regulations, particularly 29 CFR 1910 and 1926;
 - VII.U.3.h.(2)(vii)State and local regulations; and

VII.U.3.h.(2)(viii)other EPA guidance as provided.

VII.U.3.i. Community Relations Plan

The Permittee shall prepare a plan for dissemination of information to the public regarding investigation activities and results.

VII.U.3.j. Project Management Plan

The Permittee shall prepare a Project Management Plan that will include a discussion of the technical approach, schedules, budget, and key project personnel. The project management plan will also include a description of qualifications of key project personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RFI.

VII.U.4. Task II: RCRA Facility Investigation

The facility investigation activities shall follow the RFI Workplan. All sampling and analyses shall be conducted in accordance with the Data Collection Quality Assurance Plan. All sampling locations shall be documented in a log and identified on a detailed site map. During the RFI, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility-specific situation.

The Permittee shall conduct investigations of SWMUs previously identified with known or suspected releases of contamination to characterize the facility (Environmental Setting), define the source (Source Characterization), define the degree and extent of contamination (Contamination Characterization), and identify actual or potential receptors.

The investigations should result in data of adequate technical quality to develop and evaluate corrective measures alternatives during the Corrective Measures Study, when necessary.

VII.U.5. Task III: RFI Final Report and Summary

The Permittee shall analyze all facility investigation data collected during the RFI process and prepare a detailed report on the type and extent of contamination at the facility including sources and migration pathways. All information generated during the investigation shall be presented and analyzed. All evidence and procedures used for making any determinations (e.g., velocity of groundwater, extent of contamination) shall be fully documented. The report shall describe extent of contamination (qualitative/quantitative) in relation to background levels indicative for the area. The report shall contain the results of all tests, calculations, inspections,

record searches, and observations. It shall contain soil and groundwater contamination profiles, statistical comparisons, and the results of all sampling events conducted as part of the investigation. It shall display results in tables, graphs, maps, and cross sections as discussed in the Data Management Plan and Permit Condition VII.U.3.g.(2).

The Permittee shall identify all relevant and applicable standards for the protection of human health or the environment (e.g., National Ambient Air Quality Standards, Federally-approved State water quality standards, groundwater protection standards, etc.)

Data shall be evaluated to ensure it is sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, to evaluate the potential threat to human health and the environment, and to support a CMS, if required. The report shall present all data in an Appendix.

VII.U.6. General RFI Reporting Requirements

- VII.U.6.a. Five (5) hard copies and one (1) IBM compatible disk copy of all reports and data shall be submitted by the Permittee to the Administrative Authority as specified in Permit Condition VII.B.8.
- VII.U.6.b. The RFI Workplan shall be submitted by the Permittee to the Administrative Authority as described in Permit Condition VII.M.
- VII.U.6.c. The RFI Final Report and Summary shall be submit by the Permittee to the Administrative Authority as described in Permit Condition VII.O.
- VII.U.6.d. Within 90 days of the effective date of this Permit, the Permittee shall provide the Administrative Authority with signed, quarterly progress reports as outlined in Permit Condition VII.1.1.

VII.V. CMS SCOPE OF WORK

VII.V.1. Purpose

The purpose of the CMS is to develop and evaluate corrective measures alternatives and to recommend the corrective measure or measures to be taken. The required information shall include each item specified under CMS Tasks IV-VI. The Permittee will furnish the personnel, materials, and services necessary to prepare the CMS, except as otherwise specified.

If the Permittee believes that certain requirements of the Scope of Work are not applicable, the specific requirements shall be identified and the rationale for inapplicability shall be provided.

VII.V.2. Scope

The Corrective Measure Study consists of three tasks:

Task IV: CMS Plan

- a. Description of Current Situation
- b. Establishment of Corrective Action Objectives
- c. Description of Approach to CMS
- d. Schedule for CMS

Task V: Corrective Measures Study

- a. Identification of Corrective Measures Alternatives(s)
- b. Screening of Corrective Measures Alternatives(s)
- c. Development of Corrective Measures Alternative(s)
- d. Evaluation of Corrective Measures Alternative(s)
- e. Selection of Corrective Measures Alternative(s)

Task VI: CMS Final Report and Summary

VII.V.3. Task IV: CMS Plan

VII.V.3.a. Description of Current Conditions

The Permittee shall briefly describe current conditions at the facility to update information provided in the RFI Final Report and Summary. This shall include previous and/or ongoing remedial activity or interim measures.

VII.V.3.b. Establishment of Corrective Action Objectives

The Permittee shall propose to the Administrative Authority for review and approval, facility specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA guidance, and the requirements of any applicable Federal statutes and regulations.

VII.V.3.c. Description of Approach to CMS

The Permittee shall describe the general approach to the corrective measures study. The approach shall include identification, development, screening, and evaluation of the corrective measures alternatives, as discussed in detail in Permit Condition VII.V.4. The Permittee shall describe specific plans for laboratory and bench-scale studies, or field studies, if needed. Specific plans for evaluating

remedy effectiveness shall also be developed. The approach shall specify formats to be used for data presentation, including raw data, maps, charts, graphs, engineering schematics, construction design, etc.

VII.V.3.d. Schedule

The Permittee shall develop a schedule for implementing the corrective measures study, and a schedule for submitting quarterly progress reports on the study implementation.

VII. V.4. Task V: Corrective Measures Study

The CMS consists of five parts: identification, screening, development, evaluation, and selection of the corrective measures alternative(s).

VII.V.4.a. Identification of Preliminary Corrective Measures Alternative(s)

Based on the results of the RFI and the CMS Plan objectives, the Permittee shall identify all possible alternatives for removal, containment, treatment and/or other remediation of the contamination.

VII.V.4.b. Screening of Preliminary Corrective Measures Alternatives

The Permittee shall screen the identified preliminary corrective measures alternatives to eliminate those that may not prove feasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective action objective within a reasonable time period. This screening process focuses on eliminating those technologies that have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technological limitations.

Site, waste, and technological characteristics that are used to screen inapplicable technologies are described in more detail below:

VII.V.4.b.(1) Site Characteristics. Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

- VII.V.4.b.(2) Waste Characteristics. Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by waste characteristics should be eliminated from consideration.
- VII.V.4.b.(3) Technological Limitations. The level of technology development, performance record, and operation and maintenance problems shall be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process.

VII.V.4.c. Development of Corrective Measures Alternatives

The Permittee shall develop corrective measures alternatives based on corrective measures objectives, and identification and screening of preliminary alternatives. The Permittee shall rely on engineering practice to determine which of the previously identified and screened technologies appear most suitable for the site. Technologies can be combined to form the overall corrective measures alternatives. The alternatives developed should represent a workable number of options that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Permittee shall document the reasons for excluding technologies.

When a new technology is proposed or similar waste streams have not routinely been treated or disposed of using the technology, the Permittee shall conduct laboratory and/or bench-scale studies to determine the applicability to facility conditions. The Permittee shall analyze the technologies, based on literature review, vendor contracts, and past experience to determine the testing requirements.

- VII.V.4.c.(1) The Permittee shall develop a testing plan identifying the type(s) and goal(s) of the study(ies), the level of effort needed, and the procedures to be used for data management and interpretation.
- VII.V.4.c.(2) Upon completion of testing, the Permittee shall evaluate the testing results to assess the technology or technologies with respect to the site-specific questions identified in the test plan.
- VII.V.4.c.(3) The Permittee shall prepare a report summarizing the testing program and its results, both positive and negative.

VII.V.4.d. Evaluation of Corrective Measures Alternative(s)

The Permittee shall evaluate each corrective measures alternative developed in Permit Condition VII.V.4.c. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Permittee shall also develop cost estimates for each corrective measure.

VII.V.4.d.(1) Technical, Environmental, Human Health, and Institutional Concerns

The Permittee shall provide a description of each corrective measures alternative that includes but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Permittee shall evaluate each alternative in the four following areas:

VII.V.4.d.(1)(i) Technical

The Permittee shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

- VII.V.4.d.(1)(i)(1) The Permittee shall evaluate performance based on the effectiveness and useful life of the corrective measure:
 - VII.V.4.d.(1)(i)(1)(a) Effectiveness shall be evaluated in terms of the ability to perform intended functions such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. specific waste or site characteristics could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies.
 - VII.V.4.d.(1)(i)(1)(b) Useful life is defined as the length of time the level of effectiveness can be maintained. Each corrective measure

shall be evaluated in terms of the projected service lives of its component technologies.

Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

requirements shall also be considered.

VII.V.4.d.(1)(i)(2) The Permittee shall provide information on the reliability of each corrective measure including operation and maintenance requirements and demonstrated reliability:

VII.V.4.d.(1)(i)(2)(a) Operation and maintenance requirements include the frequency and. operation complexity of maintenance. Technologies requiring frequent or complex operation and maintenance activities should regarded as less reliable than technologies requiring little straightforward operation and maintenance. The availability of labor materials to meet these

VII.V.4.d.(1)(i)(2)(b) Demonstrated and expected reliability is a way of measuring risk and effect of failure. The Permittee should evaluate whether technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

- VII.V.4.d.(1)(i)(3) The Permittee shall describe the implementability of each corrective measure including relative ease of installation (constructibility) and total time required to achieve a given level of response:
 - VII.V.4.d.(1)(i)(3)(a) Constructibility is determined by conditions both internal and external to facility conditions and includes such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of facility (i.e., remote location vs. congested urban area). The Permittee shall evaluate what measures can be taken to facilitate construction under site specific conditions. External factors that affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities.
 - VII.V.4.d.(1)(i)(3)(b) Time has two components to be addressed: the time it takes to implement a corrective measure and the time it takes to see beneficial results. Beneficial results are defined as the reduction of contaminants to acceptable levels as established in the corrective measures objectives.
- VII.V.4.d.(1)(i)(4) The Permittee shall evaluate each corrective measures alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider include fire, explosion, and exposure to hazardous substances.

VII.V.4.d.(1)(ii) Environmental

The Permittee shall perform an Environmental Assessment for each alternative. The assessment shall focus on facility conditions and pathways of contamination actually addressed by each alternative.

The Environmental Assessment for each alternative will include at a minimum, an evaluation of the short-and long-term beneficial and adverse effects of the response alternative, evaluation of any adverse effects on environmentally sensitive areas, and an analysis of measures to mitigate adverse impacts.

VII.V.4.d.(1)(iii) Human Health

The Permittee shall assess each alternative in terms of the extent to which it mitigates short and long-term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure.

The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or regulations acceptable to the Administrative Authority.

VII.V.4.d.(1)(iv) Institutional

The Permittee shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, State, and Local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative shall be considered.

VII.V.4.d.(2) Cost Estimate

The Permittee shall develop an estimate of the cost of each corrective measures alternative and for each phase or segment of the alternative. The cost estimate shall include capital, and operation and maintenance costs.

VII.V.4.d.(2)(i) Capital costs consist of direct and indirect costs.

VII.V.4.d.(2)(i)(1) Direct capital costs include:

- VII.V.4.d.(2)(i)(1)(a) Construction costs: Cost of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measures alternative;
- VII.V.4.d.(2)(i)(1)(b) Equipment costs: Costs of treatment, containment, disposal and/or servicing of equipment used to implement the action;
- VII.V.4.d.(2)(i)(1)(c) Land and site development costs:

 Expenses associated with purchase of land and development of existing property; and
- VII.V.4.d.(2)(i)(1)(d) Building and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.
- VII.V.4.d.(2)(i)(2) Indirect capital costs include:
 - VII.V.4.d.(2)(i)(2)(a)Engineering expenses: Costs of administration, design, construction, supervision, drafting, and testing of corrective measures alternatives;
 - VII.V.4.d.(2)(i)(2)(b) Legal fees and license or permit costs:

 Administrative and technical costs
 necessary to obtain licenses and
 permits for installation and operation;

- VII.V.4.d.(2)(i)(2)(c) Start-up and shakedown costs: Costs incurred during corrective measure start-up; and
- VII.V.4.d.(2)(i)(2)(d) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances such as adverse weather conditions, strikes, and inadequate facility characterization.
- VII.V.4.d.(2)(ii) Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Permittee shall consider the following operation and maintenance cost components:
 - VII.V.4.d.(2)(ii)(1) Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operation;
 - VII.V.4.d.(2)(ii)(2) Maintenance materials and labor costs:

 Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;
 - VII.V.4.d.(2)(ii)(3) Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
 - VII.V.4.d.(2)(ii)(4) Purchased services: Sampling costs, laboratory fees, and professional fees which can be predicted;
 - VII.V.4.d.(2)(ii)(5) Disposal and treatment: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operation;

VII.V.4.d.(2)(ii)(6) Administrative costs: Costs associated with administration of corrective measures operation and maintenance not included under other categories;

VII.V.4.d.(2)(ii)(7) Insurance, taxes, and licensing costs:

Costs of such items as liability and accident insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

VII.V.4.d.(2)(ii)(8) Maintenance reserve and contingency funds: Annual payments into escrow funds to cover costs of anticipated replacement or rebuilding of equipment, and any large unanticipated operation and maintenance costs; and

VII.V.4.d.(2)(ii)(9) Other costs: Items that do not fit any of the above categories.

VII.V.4.d.(2)(iii) Selection of Corrective Measures Alternative(s)

The Permittee shall select a corrective measures alternative using technical, human health, and environmental criteria. At a minimum, the following criteria shall be used to select the final corrective measure or measures.

VII.V.4.d.(2)(iii)(1) Technical

VII.V.4.d.(2)(iii)(1)(a) Performance. Corrective measure or measures which are most effective at performing their intended functions and maintaining performance over extended periods of time will be given preference;

VII.V.4.d.(2)(iii)(1)(b) Reliability. Corrective measure or measures which do not require frequent or complex operation and maintenance activities and have proven effective under conditions similar to those anticipated will be given preference;

VII.V.4.d.(2)(iii)(1)(c) Implementability. Corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and

VII.V.4.d.(2)(iii)(1)(d) Safety. Corrective measure or measures that pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

VII.V.4.d.(2)(iii)(2) Human Health

The corrective measure or measures must comply with existing EPA criteria, standards, or regulations for the protection of human health. Corrective measures that provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

VII.V.4.d.(2)(iii)(3) Environmental

The corrective measure or measures imposing the least adverse impact or greatest improvement on the environment over the shortest period of time will be preferred.

VII.V.5. Task VI: CMS Final Report and Summary

The Permittee shall prepare a CMS Final Report and Summary presenting the results of the CMS and recommending a corrective action program. The Report shall at a minimum include:

VII.V.5.a. A summary of all the corrective measures alternatives originally identified, and the screening rationale employed. The results of

development of each alternative shall be described, and the evaluation of those developed shall be presented in detail. The report will describe the rationale for selection of a corrective measures alternative, including performance expectations, preliminary design criteria and rationale, general operation and maintenance requirements, and long-term monitoring requirements.

The report shall include summary tables that allow the alternative or alternatives to be easily understood. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted.

- VII.V.5.b. A proposed corrective action program that will attain compliance with concentration level objectives, control sources of releases, meet acceptable waste management requirements, and protect human health and the environment.
- VII.V.5.c. Design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, access, easements, and right-of-way, health and safety requirements, and community relations activities.
- VII.V.5.d. Cost estimates and schedules including capital cost estimate, operation and maintenance cost estimate, and project schedule (design, construction, operation).
- VII.V.5.e. A schedule for corrective measure (remedy) implementation.

VII.V.6. General CMS Reporting Requirements

- VII.V.6.a. Five (5) hard copies and one (1) IBM compatible disk copy of all reports shall be submitted by the Permittee to the Administrative Authority as specified in Permit Condition VII.B.8.
- VII.V.6.b. The CMS Plan shall be submitted by the Permittee to the Administrative Authority as described in Permit Condition VII.Q.
- VII.V.6.c. The CMS Final Report and Summary shall be submitted by the Permittee to the Administrative Authority as described in Permit Condition VII.S.
- VII.V.6.d. Within 90 days of the date the Permittee is notified to begin a CMS, the Permittee shall provide the Administrative Authority with signed, quarterly progress reports as outlined in Permit Condition VII.I.I.

APPENDIX 1

SUMMARY OF CORRECTIVE ACTION ACTIVITIES

The Permittee currently has 6 solid waste management units (SWMUs) listed in Table 2 that are subject to corrective action responsibilities at the site. This permit must be updated as necessary upon the discovery of newly identified AOC(s). Pursuant to LAC 33:V.3301.G., groundwater monitoring and corrective action for Waste Management Area A, Waste Management Area B, and Drip Pad identified in this permit are part of the Corrective Action Program.

Table 1: RFI/CMS SUBMISSION SUMMARY

Below is a summary of the planned reporting requirements pursuant to this Permit:

Actions	Due Date
Progress reports on all activities; Permit Condition VII.I. I	As determined by the Administrative Authority
RF1 Workplan; Permit Condition VII.M.1	180 calendar days after notification by the Administrative Authority of the requirement to perform an RFI
Implementation of RFI Workplan; Permit Condition VII.N	Within fourteen (14) calendar days after receipt from the Administrative Authority of written approval for the RFI Workplan.
RF1 Report and Summary; Permit Condition VII.O.1	Ninety (90) calendar days after completion of the RFI
Revised RFI Report and Summary; Permit Condition VII.O.2	As determined by the Administrative Authority
Mail approved Summary of RFI Report to all	Within Thirty (30) days of approval of the RF1
individuals on the facility mailing list; Permit Condition VII.O.2	Summary by the Administrative Authority
Notification of newly-identified SWMUs and AOCs; Permit Condition VII.J	Thirty (30) calendar days after discovery
Notification of newly-discovered releases; Permit Condition VII.K	Fifteen (15) calendar days after discovery
Interim Measures Plan; Permit Condition VII.L	As determined by the Administrative Authority
levised Interim Measure Plan; Permit Condition VII.P	As determined by the Administrative Authority
CMS Plan; Permit Condition VII.Q.2	Within ninety (90) calendar days after notification of requirement to perform CMS
Revised CMS Plan; Permit Condition VII.Q.3	As specified by the Administrative Authority
Implementation of CMS Plan; Permit Condition VII.R	Within fourteen (14) calendar days after receipt from the Administrative Authority of written approval for the CMS Plan
CMS Final Report and Summary; Permit Condition VII.S.1	Within sixty (60) calendar days after completion of CMS
Revised CMS Final Reports: Permit Condition VII.S.2	As specified by the Administrative Authority
Mail approved Summary of CMS Report to all	Within fifteen (15) days after approval of CMS
individuals on the facility mailing list; Permit Condition VII.S.2	Summary by the Administrative Authority
Demonstration of Financial Assurance; Permit	As specified in Permit after Permit modification to
Condition VII.H.5	implement corrective measures
Corrective Measure Remedy Selection/Implementation VII.T	Within thirty (30) days after approval of the CMS Final Report and Summary

Table 2: SWMUs/AOC'S REQUIRING AN RFI OR SIMILAR FACILITY INVESTIGATION UNDER A CURRENT CORRECTIVE ACTION PROGRAM

Below is a list of units being addressed under a current RF1 program.

AOC/SWMU NUMBER	NAME/DESCRIPTION
SWMU 1	Waste Management Area A
SWMU 2	Waste Management Area B
SWMU 3	Waste Management Area C
SWMU 4	Drip Pad
SWMU 5	SWMU E
SWMU 6	SWMU F

Table 3: SUMMARY OF ONGOING/PROPOSED CORRECTIVE ACTION ACTIVITIES

Corrective Action Vehicle	Unit(s) Affected	Document Dates	EDMSDocument ID#	Approval Date
Preliminary Report, RCRA Facility Investigation	Waste Management Units A,B,C - SWMUs 11, 12, 13, E and F	August, 1, 1991	6158297	
RCRA Facility Investigation	Waste Management Units A.B.C - SWMUs 11, 12, 13, E and F	September 23, 1991	6160673	
Interim Measures Plan/ Closure Plan	Treating Area and Drip Pad	October 5, 1998	6151719 7935592	11/13/1999
Interim Measures Certification Report	Treating Area	July 14, 1999	1747553 7935578	9/3/1999
RCRA Facility Investigation SWMU E Work Plan	SWMU E	July 7, 2000	12656554	9/20/2000
Report	Approval	May 2003	26926011	5/19/2003
RCRA Facility Investigation SWMU F Work Plan	SWMU F	July 7,2000	12656554	9/20/2000
Report	Submittal	July 2002	22746566	7/2/2002
	Approval	November 2002	24616614	11/13/2002
Risk Evaluation / Corrective Action Program Evaluation and MO-3 Workplan	SWMU E and F	December 30, 2005	33774719 34627828	09/14/2006
Biosparging Pilot Test Work Plan	SWMU E	November 2002	24345580	11/1/2002
Interim Report Biosparging Pilot Test	SWMU E	March 2004	3086593	3/1/2004
oundwater Remediation at Test Report	SWMU E	January 4, 2005	32588924	

Table 4: AOC/SWMUs THAT RECEIVED NO FURTHER ACTION REQUIRED AT THIS TIME (NFARAT) APPROVALS

The Permittee currently has ongoing corrective action responsibilities at the facility and has received "no further action at this time" (NFAATT) approvals for the areas listed below. This permit must be updated as necessary upon the discovery of newly-identified AOC(s).

AOC/SWMU NUMBER	NAME / DESCRIPTION
11	Areas Beneath the Treatment Cylinder
12	Product Storage Tanks
13	Aeration Pond

ATTACHMENT 1

ATTACHMENT 1 LIST OF FACILITY DOCUMENTS INCORPORATED IN THE PERMIT BY REFERENCE LAD008077315 AI# 1249

DOCUMENT TYPE	APPLICATION/ DOCUMENT	EDMS DOCUMENT ID#/TEMPO	COMMENTS
	DATE	ACTIVITY#	
Post-Closure cost estimates	08/18/2005	33268589	Information regarding the cost estimates can be found in NOD Response Submittal dated August 18, 2005.
Post-Closure Plans for Waste Management Areas A,B, C, and Drip Pad	08/09/2001	21386040	This plan is identified in Volume III, Appendix G of the Post Closure Renewal permit application dated August, 2001.
Contingency Plan	08/09/2001	21386040	The plan located in Volume III, Appendix H, of the Post Closure Renewal permit application, identifies an integrated contingency plan that contains the inspection, security, training and operating records plans.
Inspection Plan	08/09/2001	21386040	This report located in the RCRA Contingency Plan contains the RCRA inspection plan that is needed to satisfy the minimum inspection requirements for hazardous waste treatment, storage, and disposal.
Security Plan	08/09/2001	33268589	Security information providing assurance that site ingress and egress by the public is controlled is located in the August 18, 2005 submittal.
Personnel Training Plan	08/09/2001	33268589	
2004 Semi-Annual Groundwater Report	09/15/2004	32405697	This document includes the results of groundwater monitoring conducted by IP for the CAP to remediate wood preserving compounds in groundwater in the uppermost bearing zone, and groundwater monitoring to determine the horizontal and vertical extent of constituents at the facility in Deridder, LA.
Sampling and Analysis Plan	08/18/2005	33268589	This plan, also referred to as revised Appendix N, of the Post-Closure Renewal permit application, governs the sampling and analysis of groundwater from the
			facility's groundwater monitoring wells in order to meet the requirements of the groundwater compliance monitoring program. Submittal Date August 18, 2005.
Arrangements With Local Authorities	08/18/2005	33268589	Description of arrangements made with local police etc. are included in August 2005 submittal of NOD Responses.

RESPONSIVENESS SUMMARY

Item:

1

Reference:

Table 2 - Waste Management Area C, Groundwater Protection

Standard Constituents

Issue:

Column Headings do not match the columns due to a formatting

error

Comment:

Analytical should be moved into the second

column; Concentration should be moved into the third column; Practical Quantitation should be moved into

the fourth column.

LDEQ Response:

The Department acknowledges and concurs with your comments.

Column headings will be adjusted to match columns in Table 2.

Action:

Item:

2

Reference:

Table 2 - Waste Management Area C, Groundwater Protection

Standard Constituents

Issue:

Concentration limits for o-cresol and m-cresol

Comment:

The concentration limits for o-cresol and m-cresol are

not consistent with other listed constituents and are not

consistent with footnote 2 on the table.

LDEQ Response:

The Department acknowledges and concurs with your comments.

RECAP calculations have been reviewed and verified.

Action:

Item:

3

Reference:

Table 2 - Waste Management Area C, Groundwater Protection

Standard Constituents

Issue:

Change is recommended for the last sentence of Table 2, Note 2:

Comment:

The following change is recommended for the last sentence of Note 2: "If technically feasible using Method SW-846 8270, the reported detection limit, either the PQL, or the method detection limit (MDL),

should be less than or equal to the calculated

groundwater screening standards."

LDEQ Response:

The Department acknowledges and concurs with your comment to

include "less than or equal to" in the last sentence of Table 2, Note

2.

Action:

Item:

4

Reference:

Table 2 - Waste Management Area C, Groundwater Protection

Standard Constituents

Issue:

Change is recommended for the last sentence of Table 2, Note 3:

Comment:

The following change is recommended for the last sentence of Note 3: "Samples must be analyzed using an SW-846 method that meets the listed concentration

limit."

LDEQ Response:

The Department acknowledges and concurs with your comment to

replace "detection limit" with "concentration limit" in the last

sentence of Table 2, Note 3.

Action:

Item:

5

Reference:

Section VI.L Alternative Monitoring Requirements at Waste Management Area A, Waste Management Area B, and Drip Pad

Issue:

Page 40, second paragraph, last sentence

Comment:

"Table 4 constituents analyzed that are confirmed to be present must be added to the semi-annual monitoring program."

The current constituent list was developed in conjunction with LDEQ to include the constituents that adequately characterize the groundwater contamination at the site based on occurrence, toxicity and mobility. It was recognized that the list does not include all Table 4 constituents expected to be present in the groundwater. Therefore, International Paper proposes the following alternative language to replace the sentence referenced above:

"International Paper will report the Table 4 results in the semiannual reports and provide an evaluation of the results. The evaluation will include an assessment of whether the current analytical parameter list adequately characterizes releases at this site and whether additional constituents should be added based on the Table 4 results."

LDEQ Response:

The Department acknowledges but does not concur with your comment. In accordance with LAC 33:V.3319.G., "If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the administrative authority within seven days after the completion of the initial analysis and add them to the monitoring list".

Action: